Bull Trout Final Critical Habitat Justification: Rationale for Why Habitat is Essential, and Documentation of Occupancy

Chapter 31. Columbia Headwaters Recovery Unit—Clark Fork River Basin Critical Habitat Unit

Chapter 31. Clark Fork River Basin Critical Habitat Unit

The Clark Fork River Basin CHU is essential maintaining bull trout distribution within this unique geographic region of the Columbia Headwaters RU in large part because it represents the evolutionary heart of the migratory adfluvial bull trout life history form. Flathead Lake and Lake Pend Oreille are the two largest lakes in the range of the species, and bull trout from those core areas historically grew to be large and migrated upstream up to 322 km (200 mi) to spawning and rearing habitats. These habitats were partially fragmented by hydroelectric dams and other manmade barriers but are increasingly being reconnected with dam removal (Milltown Dam) and improved fish passage (Cabinet Gorge, Noxon Rapids, Thompson Falls). The resident life history form of bull trout is minimally present in this CHU and fluvial bull trout play a reduced role relative to adfluvials. The two major lakes (Flathead and Pend Oreille), as well as over 20 additional core areas established in smaller headwater lakes that are isolated from Flathead and Pend Oreille to varying degrees, are the primary refugia for the naturally occurring adfluvial form of bull trout across their range. Groundwater-fed coldwater spawning and rearing habitat is critical to supporting bull trout in this CHU. Extensive portions of the headwater habitat are within protected areas (Glacier National Park and Bob Marshall and Great Bear Wilderness) and portions of the spawning and rearing habitat extend northward into British Columbia. Bull trout remain relatively abundant in portions of this CHU but are depressed in other areas (see Appendix 1 for more detailed information).

The Clark Fork River Basin CHU includes the northeastern corner of Washington (Pend Oreille County), the panhandle portion of northern Idaho (Boundary, Bonner, and Kootenai Counties), and most of western Montana (Lincoln, Flathead, Sanders, Lake, Mineral, Missoula, Powell, Lewis and Clark, Ravalli, Granite, and Deer Lodge Counties). This unit includes 12 CHSUs, organized primarily on the basis of major watersheds: Lake Pend Oreille, Pend Oreille River, and lower Priest River (Lake Pend Oreille); Priest Lakes and Upper Priest River (Priest Lakes); Lower Clark Fork River; Middle Clark Fork River; Upper Clark Fork River; Flathead Lake, Flathead River, and Headwater Lakes (Flathead); Swan River and Lakes (Swan); Hungry Horse Reservoir, South Fork Flathead River, and Headwater Lakes (South Fork Flathead); Bitterroot River; Blackfoot River; Clearwater River and Lakes; and Rock Creek. The Clark Fork River Basin CHU includes 5,356 km (3,328 mi) of streams and 119,620 ha (295,587 ac) of 45 lakes and reservoirs proposed as critical habitat.

31.1. Priest Lakes Critical Habitat Subunit

The Priest Lakes CHSU is essential to bull trout conservation because it is the only major watershed occupied by bull trout in the most downstream portion (Pend Oreille River) of the Clark Fork River Basin CHU. Its high elevation with relatively secure and un-entered spawning and rearing habitat in headwater reaches of the Upper Priest River may prove resilient during ongoing climate change. While artificially isolated from other bull trout populations, losing this CHSU would create a gap in the range of the species with no opportunity for natural recolonization at this time (see Appendix 1 for more detailed information).

Located primarily in Idaho (Boundary and Bonner Counties) the Priest Lakes CHSU includes the entire drainage of the Priest River upstream from Outlet Dam, including Priest and Upper Priest Lakes and the Upper Priest River. The extreme headwaters lie in British Columbia, Canada, and

its headwaters of several west side drainages are in Pend Oreille County, Washington. A total of 175.4 km (109.0 mi) of streams and 9,984 ha (24,671 ac) of lake surface area are designated as critical habitat.

The following water bodies are included in this CHSU (see Table 85):

(A) Priest Lake (9,442 ha (23,331 ac)) provides FMO habitat.

(B) Indian Creek from its confluence with Priest Lake upstream 5.2 km (3.2 mi) to its confluence with South Fork Indian Creek and North Fork Indian Creek; South Fork Indian Creek from its confluence upstream 5.9 km (3.6 mi) to its headwaters; and North Fork Indian Creek from its confluence upstream 6.3 km (3.9 mi) provide spawning and rearing habitat.

(C) Granite Creek from its confluence with Priest Lake upstream 13.9 km (8.7 mi) provides FMO habitat; spawning and rearing habitat occurs for an additional 3.9 km (2.4 mi) upstream to its confluence with North Fork Granite Creek and South Fork Granite Creek. The South Fork Granite Creek from its confluence with Granite Creek upstream 11.3 km (7.0 mi); the North Fork Granite Creek from its confluence with Granite Creek upstream 11.2 km (7.0 mi); and Tillicum Creek from its confluence with the North Fork Granite Creek upstream 1.2 km (0.7 mi) to barrier falls provide spawning and rearing habitat.

(D) Two Mouth Creek from its confluence with Priest Lake upstream 15.7 km (9.8 mi) to its headwaters provides spawning and rearing habitat.

(E) Lion Creek from its confluence with Priest Lake upstream 18.2 km (11.3 mi) to its headwaters provides spawning and rearing habitat.

(F) Priest River Thorofare, a 4.4 km (2.8 mi) long channel between Upper Priest and Priest Lakes, provides FMO habitat.

(G) Caribou Creek from its confluence with Priest River Thorofare upstream 8.4 km (5.2 mi) provides FMO habitat and may provide spawning and rearing habitat.

(H) Upper Priest Lake (542 ha (1,340 ac)) provides FMO habitat.

(I) Trapper Creek from its confluence with Upper Priest Lake upstream 7.2 km (4.5 mi) provides spawning and rearing habitat.

(J) The Upper Priest River from its confluence with Upper Priest Lake upstream 2.2 km (1.4 mi) to its confluence with Hughes Fork provides FMO habitat. The Upper Priest River from its confluence with Hughes Fork upstream 28.7 km (17.8 mi) to a barrier falls provides spawning and rearing habitat.

(K) Hughes Fork from its confluence with the Upper Priest River upstream 15.7 km (9.8 mi); Gold Creek from its confluence with Hughes Fork upstream 5.0 km (3.1 mi); Jackson Creek from its confluence with Hughes Fork upstream 1.6 km (1.0 mi); and Bench Creek from its confluence with Hughes Fork upstream 1.2 km (0.7 mi) provide spawning and rearing habitat.

(L) Cedar Creek from its confluence with the Upper Priest River upstream 3.8 km (2.3 mi) provides spawning and rearing habitat.

(M) Lime Creek from its confluence with the Upper Priest River upstream 1.6 km (1.0 mi) provides spawning and rearing habitat.

(N) Rock Creek from its confluence with the Upper Priest River upstream 1.9 km (1.2 mi) provides spawning and rearing habitat.

(O) Malcom Creek from its confluence with the Upper Priest River upstream 0.9 km (0.6 mi) provides rearing habitat.

Table 85. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Priest Lakes CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Priest Lakes	Bench Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170019 488689
Clark Fork River Basin–Priest Lakes	Caribou Creek	ID	Juvenile bull trout documented in 2003 (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168641 487475
Clark Fork River Basin–Priest Lakes	Cedar Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1169586 488797
Clark Fork River Basin–Priest Lakes	Gold Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1169733 488213
Clark Fork River Basin–Priest Lakes	Granite Creek	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008), and documented bull trout presence (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168578 486404.1
Clark Fork River Basin–Priest Lakes	Granite Creek	ID	Bull trout redd documented in 2006 (T. Anderson in litt. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168578 486404.2
Clark Fork River Basin–Priest Lakes	Granite Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168578 486404.3
Clark Fork River Basin–Priest Lakes	Hughes Fork	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1169232 488054
Clark Fork River Basin–Priest Lakes	Indian Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168755 485982
Clark Fork River Basin–Priest Lakes	Jackson Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170006 488558
Clark Fork River Basin–Priest Lakes	Lime Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1169643 488942

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Priest Lakes	Lion Creek	ID	Juvenile bull trout documented in 2004 (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168413 487345
Clark Fork River Basin–Priest Lakes	Malcom Creek	ID	Juvenile bull trout documented in 2004 (DuPont et al 2008).	Rationale provided in Priest Lakes CHSU justification text	1169392 489817
Clark Fork River Basin–Priest Lakes	North Fork Granite Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170287 487001.1
Clark Fork River Basin–Priest Lakes	North Fork Granite Creek	WA	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170287 487001.2
Clark Fork River Basin–Priest Lakes	North Fork Indian Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1167889 486338.1
Clark Fork River Basin–Priest Lakes	North Fork Indian Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1167889 486338.2
Clark Fork River Basin–Priest Lakes	Rock Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1169702 489064
Clark Fork River Basin–Priest Lakes	South Fork Granite Creek	ID	Bull trout presence documented 1994-1998 (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170287 487011.1
Clark Fork River Basin–Priest Lakes	South Fork Granite Creek	WA	Bull trout presence documented 1994-1998 (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1170287 487011.2
Clark Fork River Basin–Priest Lakes	South Fork Indian Creek	ID	Presumed occupied based on bull trout occupancy in adjacent stream (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1167889 486347.1
Clark Fork River Basin–Priest Lakes	South Fork Indian Creek	ID	Presumed occupied based on bull trout occupancy in adjacent stream (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1167889 486347.2
Clark Fork River Basin–Priest Lakes	The Thorofare	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168428 487401

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Priest Lakes	Tillicum Creek	ID	Presumed occupied based on bull trout occupancy in adjacent stream (Hardy et al. 2008) and historic documentation (Baconrind in litt. 2009).	Rationale provided in Priest Lakes CHSU justification text	1170700 487248
Clark Fork River Basin–Priest Lakes	Trapper Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168984 487929
Clark Fork River Basin–Priest Lakes	Two Mouth Creek	ID	Bull trout presence documented 1994-1998 (DuPont et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168524 486871
Clark Fork River Basin–Priest Lakes	Upper Priest River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168636 487661.1
Clark Fork River Basin–Priest Lakes	Upper Priest River	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Priest Lakes CHSU justification text	1168636 487661.2
Clark Fork River Basin–Priest Lakes	Priest Lake	ID	Subadult and adult bull trout occupy Priest Lake for FMO (PBTTAT 1998b).	Rationale provided in Priest Lakes CHSU justification text	1168650 485882
Clark Fork River Basin–Priest Lakes	Upper Priest Lake	ID	Subadult and adult bull trout occupy Upper Priest Lake for FMO (PBTTAT 1998b).	Rationale provided in Priest Lakes CHSU justification text	1168890 487846

31.2. Lake Pend Oreille Critical Habitat Subunit

The Lake Pend Oreille CHSU is essential to bull trout conservation because it is among the more secure and stable bull trout refugia across the range of the species and may provide a very important stronghold against potential extinction. Adfluvial bull trout comprise the predominant life history form present in the CHSU, and the CHSU has averaged over 800 bull trout redds annually over the last 10 years with a high of greater than 1,250 redds in recent years. Lake Pend Oreille not only provides important FMMO habitat to bull trout local populations in Lake Pend Oreille tributaries and Pend Oreille River tributaries but to bull trout populations in the Lower Clark Fork River CHSU. Bull trout local populations have not been recently documented in Pend Oreille River tributaries that were known to be historically present. Reestablishing local populations that are broadly distributed throughout the CHSU has been identified as necessary for bull trout recovery (see Appendix 1 for more detailed information).

Located in Washington (Pend Oreille County) and Idaho (Boundary, Bonner, and Kootenai Counties), the Lake Pend Oreille CHSU includes the Pend Oreille River from the crest of Boundary Dam in Washington upstream to Lake Pend Oreille, the lower portion of the Priest River drainage (downstream from Outlet Dam), Lake Pend Oreille, the Clark Fork River upstream of Lake Pend Oreille to Cabinet Gorge Dam, and their respective tributaries. A total of 708.2 km (440.0 mi) of streams/rivers and 33,581 ha (82,980 ac) of Lake Pend Oreille surface area are designated as bull trout critical habitat.

The following water bodies are included in this CHSU (see Table 86):

(A) The Pend Oreille River from the crest of Boundary Dam upstream 162.2 km (100.8 mi) to Lake Pend Oreille (Long Bridge at Sandpoint, Idaho) provides FMO habitat.

(B) Slate Creek from its confluence with the Pend Oreille River upstream 1.2 km (0.8 mi) to a barrier falls provides FMO habitat.

(C) Sullivan Creek from its confluence with the Pend Oreille River upstream 8.8 km (5.4 mi) provides FMO habitat; an additional 27.6 km (17.2 mi) to its headwaters is unoccupied but is anticipated to provide spawning and rearing habitat.

(D) Cedar Creek from its confluence with the Pend Oreille River upstream 16.1 km (10.0 mi) to its headwaters provides spawning and rearing habitat.

(E) Ruby Creek from its confluence with the Pend Oreille River upstream 21.0 km (13.1 mi) to its headwaters is unoccupied but is anticipated to provide spawning and rearing habitat.

(F) LeClerc Creek from its confluence with the Pend Oreille River upstream 1.9 km (1.2 mi) to the confluence of the West Branch of LeClerc Creek and the East Branch of LeClerc Creek provides FMO habitat. West Branch of LeClerc Creek from the confluence of LeClerc Creek upstream 24.7 km (15.4 mi) to its headwaters; East Branch of LeClerc Creek from its confluence with LeClerc Creek upstream 20.8 km (12.9 mi) to its headwaters; and Fourth of July Creek from its confluence with the East Branch of LeClerc Creek upstream 0.7 km (0.5 mi) to a barrier falls provide spawning and rearing habitat. Middle Branch of LeClerc Creek from its confluence with the East Branch of LeClerc Creek upstream 11.3 km (7.0 mi) to its headwaters is unoccupied but is anticipated to provide spawning and rearing habitat.

(G) Mill Creek from its confluence with the Pend Oreille River upstream 2.1 km (1.3 mi) provides FMO habitat. Mill Creek upstream for an additional 12.4 km (7.7 mi) to its headwaters is unoccupied but is anticipated to provide spawning and rearing habitat.

(H) Tacoma Creek from its confluence with the Pend Oreille River upstream 1.9 km (1.2 mi) is unoccupied but is anticipated to provide FMO habitat. Tacoma Creek upstream for an additional 32.7 km (20.3 mi) to its headwaters is unoccupied but is anticipated to provide spawning and rearing habitat. South Fork of Tacoma Creek from its confluence with Tacoma Creek upstream 16.2 km (10.1 mi) to its headwaters and the North Fork South Fork Tacoma Creek from its confluence with the South Fork Tacoma Creek upstream 10.9 km (6.7 mi) to its headwaters, are both unoccupied but are anticipated to provide spawning and rearing habitat.

(I) Calispell Creek from its confluence with the Pend Oreille River upstream 11.1 km (6.9 mi) to Calispell Lake is unoccupied but is anticipated to provide FMO habitat. Smalle Creek from its confluence with Calispell Creek upstream 5.5 km (3.4 mi) is unoccupied but is anticipated to provide FMO habitat; an additional 5.0 km (3.1 mi) to a barrier falls is unoccupied but is anticipated to provide spawning and rearing habitat. The East Fork of Smalle Creek from its confluence with Smalle Creek upstream 6.7 km (4.2 mi) to a barrier falls is unoccupied but is anticipated to provide spawning and rearing habitat. Calispell Lake totaling roughly 190.6 ha (471 ac) of lake surface area is unoccupied but is anticipated to provide FMO habitat. Winchester Creek from its confluence with Calispell Lake upstream 5.9 km (3.6 mi) is unoccupied but is anticipated to provide FMO habitat; an additional 10.4 km (6.5 mi) to a barrier falls is unoccupied but is anticipated to provide spawning and rearing habitat.

(J) Indian Creek from its confluence with the Pend Oreille River upstream 8.5 km (5.3 mi) to its headwaters provides spawning and rearing habitat.

(K) The lower Priest River from its confluence with the Pend Oreille River upstream 70.5 km (43.8 mi) to Outlet Dam at Priest Lake provides FMO habitat.

(L) The East River from its confluence with the Priest River upstream 4.0 km (2.5 mi) and the Middle Fork East River from its confluence with the East River upstream 2.5 km (1.5 mi) provide FMO habitat; spawning and rearing habitat in the Middle Fork East River occurs for an additional 9.7 km (6.0 mi) upstream. Uleda Creek from its confluence with the Middle Fork East River upstream 3.2 km (2.0 mi) provides spawning and rearing habitat. Keokee Creek from its confluence with the Middle Fork East River upstream 2.3 km (1.4 mi) provides rearing habitat for Middle Fork East River bull trout. North Fork East River from its confluence with the East River upstream 8.4 km (5.2 mi) provides FMO habitat; presumed spawning and rearing habitat occurs for an additional 3.9 km (2.4 mi) upstream.

(M) Lake Pend Oreille (does not include impounded reach of the Pend Oreille River from Albeni Falls Dam to the Long Bridge at Sandpoint, Idaho) totaling roughly 33,581 ha (82,980 ac) of lake surface area provides FMO habitat.

(N) The Pack River from its confluence with Lake Pend Oreille upstream 53.4 km (33.2 mi) provides FMO habitat; spawning and rearing habitat occurs for an additional 9.4 km (5.8 mi) upstream to a barrier falls. Grouse Creek from its confluence with the Pack River upstream 13.4 km (8.3 mi) provides FMO habitat; spawning and rearing habitat occurs for an additional 12.9 km (8.0 mi) upstream.

(O) Trestle Creek from its confluence with Lake Pend Oreille upstream 14.4 km (8.9 mi) provides spawning and rearing habitat.

(P) Strong Creek from its confluence with Lake Pend Oreille upstream 3.1 km (1.9 mi) provides spawning and rearing habitat.

(Q) Gold Creek from its confluence with Lake Pend Oreille upstream 2.7 km (1.7 mi) and West Gold Creek from its confluence with Gold Creek upstream 4.9 km (3.0 mi) provide spawning and rearing habitat.

(R) North Gold Creek from its confluence with Lake Pend Oreille upstream 2.0 km (1.3 mi) provides spawning and rearing habitat.

(S) Granite Creek from its confluence with Lake Pend Oreille upstream 10.1 km (6.3 mi) and Sullivan Springs from its confluence with Granite Creek upstream 2.1 km (1.3 mi) provide spawning and rearing habitat.

(T) Johnson Creek from its confluence with the south channel of the Clark Fork River delta at its confluence with Lake Pend Oreille upstream 1.2 km (0.7 mi) provides spawning and rearing habitat.

(U) The Clark Fork River from its confluence with Lake Pend Oreille upstream 14.5 km (9.0 mi) to Cabinet Gorge Dam provides FMO habitat.

(V) Lightning Creek from its confluence with the Clark Fork River upstream 14.3 km (8.9 mi) provides FMO habitat; spawning and rearing habitat occurs for an additional 15.2 km (9.5 mi) upstream to a barrier falls. Morris Creek from its confluence with Lightning Creek upstream 3.5 km (2.2 mi); East Fork Creek from its confluence with Lightning Creek upstream 6.5 km (4.1 mi); Savage Creek from its confluence with East Fork Creek upstream 5.9 km (3.7 mi); Char Creek from its confluence with East Fork Creek upstream 3.4 km (2.1 mi); Porcupine Creek from its confluence with Lightning Creek upstream 3.0 km (1.9 mi); Wellington Creek from its confluence with Lightning Creek upstream 1.0 km (0.6 mi); and Rattle Creek from its confluence with Lightning Creek upstream 6.0 km (3.7 mi) provide spawning and rearing habitat.

Table 86. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Lake Pend Oreille CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Calispell Creek	WA	Currently unoccupied, but would serve as a migratory corridor for future recovery of local populations in upstream tributaries, which has been identified as necessary (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1172894 483436
Clark Fork River Basin–Lake Pend Oreille	Calispell Lake	WA	Currently unoccupied, but would serve as a migratory corridor for future recovery of local populations in upstream tributaries, which has been identified as necessary (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173332 482736
Clark Fork River Basin–Lake Pend Oreille	Cedar Creek	WA	Bull trout documented during surveys (KNRD and WDFW 1997; C. Vail in litt. 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1174109 487417.1
Clark Fork River Basin–Lake Pend Oreille	Cedar Creek	WA	Bull trout documented during surveys (KNRD and WDFW 1997; C. Vail in litt. 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1174109 487417.2
Clark Fork River Basin–Lake Pend Oreille	Char Cr	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1160671 482620
Clark Fork River Basin–Lake Pend Oreille	Clark Fork River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008), and bull trout captured below Cabinet Gorge Dam.	Rationale provided in Lake Pend Oreille CHSU justification text	1162072 481455
Clark Fork River Basin–Lake Pend Oreille	E. Fork Small Creek	WA	Currently unoccupied, but would provide SR habitat for future recovery of a local population, which has been identified as necessary (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173543 483276
Clark Fork River Basin–Lake Pend Oreille	East Branch LeClerc Creek	WA	Bull trout documented during numerous surveys (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172818 485338

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	East Fork Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161121 482406
Clark Fork River Basin–Lake Pend Oreille	East River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168518 483527
Clark Fork River Basin–Lake Pend Oreille	Fourth of July Creek	WA	Bull trout documented during surveys (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172720 485556
Clark Fork River Basin–Lake Pend Oreille	Gold Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163700 482683
Clark Fork River Basin–Lake Pend Oreille	Granite Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164647 480992
Clark Fork River Basin–Lake Pend Oreille	Grouse Creek	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164773 484027.1
Clark Fork River Basin–Lake Pend Oreille	Grouse Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164773 484027.2
Clark Fork River Basin–Lake Pend Oreille	Indian Creek	WA	Adult bull trout captured in a trap (Andonaegui 2003)	Rationale provided in Lake Pend Oreille CHSU justification text	1171515 482425
Clark Fork River Basin–Lake Pend Oreille	Johnson Cr	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1162290 481388

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Keokee Creek	ID	Juvenile bull trout captured during recovery project conducted from 2005-2007 (Gidley in litt. 2007; DuPont in litt. 2005).	Rationale provided in Lake Pend Oreille CHSU justification text	1166967 483893
Clark Fork River Basin–Lake Pend Oreille	LeClerc Creek	WA	Serves as a migratory corridor for bull trout observed in upstream tributaries (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172828 485181
Clark Fork River Basin–Lake Pend Oreille	Lightning Creek	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161909 481397.1
Clark Fork River Basin–Lake Pend Oreille	Lightning Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161909 481397.2
Clark Fork River Basin–Lake Pend Oreille	Lunch Creek	WA	Also referred to as Sweet Creek, has had several bull trout observations, most recently in 2000 by WDFW (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1173882 488197
Clark Fork River Basin–Lake Pend Oreille	Middle Branch Le Clerc Creek	WA	Unoccupied but designated because bull trout have been documented in three other LeClerc Creek tributaries (Andonaegui 2003), and restoration activities are ongoing in Middle Branch Le Clerc Creek to aide recovery and restore connectivity.	Rationale provided in Lake Pend Oreille CHSU justification text	1172609 485854
Clark Fork River Basin–Lake Pend Oreille	Middle Fork East River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168189 483714.1
Clark Fork River Basin–Lake Pend Oreille	Middle Fork East River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168189 483714.2
Clark Fork River Basin–Lake Pend Oreille	Middle Fork East River	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168189 483714.3

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Mill Creek	WA	A bull trout was documented in a lower reach (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172649 484893.1
Clark Fork River Basin–Lake Pend Oreille	Mill Creek	WA	A bull trout was documented in a lower reach (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172649 484893.2
Clark Fork River Basin–Lake Pend Oreille	Mill Creek	WA	Surveys have failed to document presence in the upper reach, but a 14 in. bull trout was documented in a lower reach (Andonaegui 2003). Mill Creek was also identified as necessary for recovery (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1172649 484893
Clark Fork River Basin–Lake Pend Oreille	Morris Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161170 482240
Clark Fork River Basin–Lake Pend Oreille	N.F. of S. Fork Tacoma Creek	WA	Bull trout have not been documented, but habitat is connected and accessible to bull trout, and would provide SR habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173614 483991
Clark Fork River Basin–Lake Pend Oreille	North Fork East River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168189 483724.1
Clark Fork River Basin–Lake Pend Oreille	North Fork East River	ID	Bull trout redd documented in 2004 (Hardy et al. 2008), and bull trout and or bull trout/brook trout hybrids captured in 2006 (C. Tretter in litt. 2006).	Rationale provided in Lake Pend Oreille CHSU justification text	1168189 483724.2
Clark Fork River Basin–Lake Pend Oreille	North Gold Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164560 479751
Clark Fork River Basin–Lake Pend Oreille	Pack River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163700 482693.1

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Pack River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163700 482693.2
Clark Fork River Basin–Lake Pend Oreille	Pack River	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163700 482693.3
Clark Fork River Basin–Lake Pend Oreille	Pend Oreille River	ID	Occupied based on telemetry data (DuPont et al. 2007).	Rationale provided in Lake Pend Oreille CHSU justification text	1173521 489999.1
Clark Fork River Basin–Lake Pend Oreille	Pend Oreille River	ID	Occupied based on telemetry data (DuPont et al. 2007).	Rationale provided in Lake Pend Oreille CHSU justification text	1173521 489999.2
Clark Fork River Basin–Lake Pend Oreille	Pend Oreille River	WA	Documented use by subadult and adult bull trout (Geist et al. 2004; J. Olson in litt. 2008, 2009).	Rationale provided in Lake Pend Oreille CHSU justification text	1173521 489999.3
Clark Fork River Basin–Lake Pend Oreille	Porcupine Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161227 482673
Clark Fork River Basin–Lake Pend Oreille	Priest River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168927 481728.1
Clark Fork River Basin–Lake Pend Oreille	Priest River	ID	Seasonal use (migration) based on redd surveys upstream (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1168927 481728.2
Clark Fork River Basin–Lake Pend Oreille	Rattle Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161721 483264

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Ruby Creek	WA	Bull trout have not been documented, but habitat is connected and accessible to bull trout, and would provide SR habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173416 485562
Clark Fork River Basin–Lake Pend Oreille	S. Fork Tacoma Creek	WA	Bull trout have not been documented, but habitat is connected and accessible to bull trout, and would provide SR habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173226 483937.1
Clark Fork River Basin–Lake Pend Oreille	S. Fork Tacoma Creek	WA	Bull trout have not been documented, but habitat is connected and accessible, and would provide SR habitat for recovered local population in the future (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173226 483937.2
Clark Fork River Basin–Lake Pend Oreille	Savage Cr	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1160964 482479
Clark Fork River Basin–Lake Pend Oreille	Slate Creek	WA	Numerous bull trout caught at the mouth (Andonaegui 2003) seeking cold water.	Rationale provided in Lake Pend Oreille CHSU justification text	1173318 489232.1
Clark Fork River Basin–Lake Pend Oreille	Slate Creek	WA	Numerous bull trout caught at the mouth (Andonaegui 2003) seeking cold water.	Rationale provided in Lake Pend Oreille CHSU justification text	1173318 489232.2
Clark Fork River Basin–Lake Pend Oreille	Small Creek	WA	Bull trout have not been documented, but would provide SR habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173073 483207.1
Clark Fork River Basin–Lake Pend Oreille	Small Creek	WA	Bull trout have not been documented, but would provide migratory habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173073 483207.2
Clark Fork River Basin–Lake Pend Oreille	Strong Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163458 482485

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	Sullivan Creek	WA	A bull trout was documented in a lower reach (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1173700 488652.1
Clark Fork River Basin–Lake Pend Oreille	Sullivan Creek	WA	Bull trout have not been documented, but this water body is designated because connectivity restoration is planned. A bull trout was documented in a lower reach (Andonaegui 2003), and it has been identified as necessary for recovery (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173700 488652.2
Clark Fork River Basin–Lake Pend Oreille	Sullivan Creek	WA	A bull trout was documented in a lower reach (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1173700 488652.3
Clark Fork River Basin–Lake Pend Oreille	Sullivan Springs	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164114 480882
Clark Fork River Basin–Lake Pend Oreille	Tacoma Creek	WA	Bull trout have not been documented, but would provide SR habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1172876 483925.1
Clark Fork River Basin–Lake Pend Oreille	Tacoma Creek	WA	Bull trout have not been documented, but would provide migratory habitat for future recovery of a local population (Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1172876 483925.2
Clark Fork River Basin–Lake Pend Oreille	Trestle Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1163689 482800
Clark Fork River Basin–Lake Pend Oreille	Uleda Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1167065 483877
Clark Fork River Basin–Lake Pend Oreille	Wellington Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1161620 482903

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lake Pend Oreille	West Branch LeClerc Creek	WA	Bull trout documented during numerous surveys (Andonaegui 2003).	Rationale provided in Lake Pend Oreille CHSU justification text	1172818 485348
Clark Fork River Basin–Lake Pend Oreille	West Gold Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164511 479535.1
Clark Fork River Basin–Lake Pend Oreille	West Gold Creek	ID	Occupied based on annual spawning surveys (Hardy et al. 2008).	Rationale provided in Lake Pend Oreille CHSU justification text	1164511 479535.2
Clark Fork River Basin–Lake Pend Oreille	Winchester Creek	WA	Currently unoccupied, but would provide FMO and SR habitat for future recovery of a local population, which has been identified as necessary ((Andonaegui 2003; Service 2002a).	Rationale provided in Lake Pend Oreille CHSU justification text	1173382 482699
Clark Fork River Basin–Lake Pend Oreille	Lake Pend Oreille	ID	Subadult and adult bull trout occupy Lake Pend Oreille for FMO (PBTTAT 1998a).	Rationale provided in Lake Pend Oreille CHSU justification text	1164103 481516

31.3. Lower Clark Fork River Critical Habitat Subunit

The Lower Clark Fork River CHSU is essential to bull trout conservation because it provides an important portion of the spawning and rearing habitat for Lake Pend Oreille, as well as an essential migratory corridor for bull trout from Lake Pend Oreille to be able to access productive watersheds upstream of this CHSU. Historic fragmentation of the CHSU due to three privately owned mainstem hydroelectric dams (Cabinet Gorge, Noxon Rapids, and Thompson Falls) seriously compromised access and productivity of this habitat for bull trout for nearly a century. However, ongoing and planned near-term fish passage efforts (both fishways and trap and transport programs) have improved the longer-term prognosis for bull trout connectivity, and this CHSU is expected to provide a critical linkage to recovering bull trout in the entire Clark Fork River CHU in the future. Continuing efforts to suppress nonnative fish will remain an important component of the recovery efforts, which are largely well funded by a long term FERC license agreement with Avista Corp (see Appendix 1 for more detailed information).

The Lower Clark Fork River CHSU includes three mainstem Clark Fork River impoundments (Cabinet Gorge, Noxon, and Thompson Falls Reservoirs); the Clark Fork River upstream of Thompson Falls Dam to the confluence of the Flathead River; the lower Flathead River drainage (downstream from Kerr Dam); and tributaries to these waters. With the exception of the lowermost boundary at Cabinet Gorge Dam (Bonner County, Idaho), the Lower Clark Fork River CHSU is located in the northwestern corner of Montana in Sanders, Lake, and Missoula Counties. A total of 474.9 km (295.1 mi) and 3,933.1 ha (9,719.0 ac) of surface area is designated as bull trout critical habitat.

The following water bodies are included in this CHSU (see Table 87):

(A) Cabinet Gorge Reservoir (1,295 ha (3,200 ac)) on the Clark Fork River provides FMO habitat for bull trout. A trap and transport program supervised by the Service and conducted under the Avista Corporation's Fish Passage and Native Salmonid Restoration Program is artificially restoring connectivity around Cabinet Gorge Dam. Bull trout originating from Lake Pend Oreille that are captured downstream of the dam and genetically assigned to natal waters upstream are released at locations within the Lower and Middle Clark Fork River CHSUs that provide access to those spawning and rearing habitats from which they originated.

(B) Bull River from its confluence with Cabinet Gorge Reservoir upstream 39.8 km (24.7 mi) to its headwaters provides FMO habitat. The East Fork Bull River from its confluence with the Bull River upstream 12.8 km (8.0 mi) and the South Fork Bull River from the confluence upstream 3.6 km (2.2 mi) provide spawning and rearing habitat.

(C) Rock Creek from its confluence with Cabinet Gorge Reservoir upstream 13.5 km (8.4 mi) to a natural barrier provides spawning and rearing habitat.

(D) Noxon Reservoir (3,237 ha (8,000 ac)) provides FMO habitat for bull trout. It extends upstream from Noxon Rapids Dam nearly to the base of Thompson Falls Dam at full pool.

(E) The following tributaries to Noxon Reservoir provide spawning and rearing habitat upstream: Swamp Creek from its confluence with Noxon Reservoir upstream 18.7 km (11.6 mi) to natural barriers near its headwaters; Vermilion River from its confluence with Noxon Reservoir (Clark Fork River) upstream 17.1 km (10.6 mi) to a natural barrier at Vermilion Falls; Graves Creek from its confluence with the Clark Fork River (upper pool of Noxon Reservoir) upstream 5.0 km

(3.1 mi) to a natural barrier; Prospect Creek from its confluence with the Clark Fork River upstream 32.4 km (20.2 mi) to its source; Crow Creek (also known as West Fork Crow Creek) from its confluence with Prospect Creek upstream 2.0 km (1.2 mi) to its source; Cooper Gulch from its confluence with Prospect Creek upstream 6.4 km (4.0 mi) to its source and East Fork Crow Creek from its confluence with Prospect Creek upstream 0.7 km (0.4 mi) to its source.

(F) The Clark Fork River mainstem, 70.6 km (43.9 mi) upstream from Thompson Falls Dam to its confluence with the Flathead River provides FMO habitat for bull trout from potentially several different core areas. Thompson Falls Reservoir, a run-of-river impoundment included in this stream reach, is not considered a lake due to the lack of storage capacity behind the dam.

(G) Thompson River from its confluence with Clark Fork River upstream 24.7 km (15.3 mi) to its confluence with Fishtrap Creek contains FMO habitat. The following Thompson River tributaries provide spawning and rearing habitat: West Fork Thompson River from its mouth upstream 8.7 km (5.4 mi) to the confluence of Lakes Creek; Fishtrap Creek from its confluence with the Thompson River upstream 17.5 km (10.9 mi) to its confluence with West Fork Fishtrap Creek; Beatrice Creek from its confluence with Fishtrap Creek upstream 4.5 km (2.8 mi) to its headwaters; and West Fork Fishtrap Creek from its mouth upstream 7.0 km (4.3 mi)to near its source.

(H) The lower Flathead River from its confluence with the Clark Fork River 41.3 km (25.7 mi) upstream to its confluence with the Jocko River is occupied by bull trout at low abundance levels and provides FMO habitat for maintaining the migratory life history form.

(I) The Jocko River from its confluence with the Flathead River upstream 52.9.0 km (32.9 mi) to its confluence with the South Fork Jocko River provides FMO habitat. Spawning and rearing habitat extends upstream in the North Fork Jocko River from its confluence with the Jocko River upstream 9.9 km (6.1 mi) to a natural barrier approximately midway to its source and in the South Fork Jocko River from its confluence with the Jocko River upstream 15.1 km (9.4 mi) to a natural barrier approximately midway to its source.

(J) Mission Creek, Post Creek, and Dry Creek are heavily dewatered and altered Flathead River tributaries, so their lower reaches are not designated to be designated as bull trout critical habitat. However, two headwater reservoirs and a natural lake continue to provide FMO habitat with upstream spawning and rearing habitat designated as bull trout critical habitat: Mission Creek, 1.4 km (0.8 mi) upstream of and including Mission Reservoir (117 ha (289 ac)) to a manmade barrier; Post Creek, 6.4 km (4.0 mi) upstream of and including McDonald Lake (101 ha (250 ac)) to a natural barrier; and Dry Lake Creek, 6.8 km (4.2 mi) upstream of and including Tabor Reservoir (111 ha (274 ac)) to a natural barrier.

Table 87. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Lower Clark Fork River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lower Clark Fork River	Beatrice Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann (2003).	1-13 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b).	1151014 477940
Clark Fork River Basin–Lower Clark Fork River	Beatrice Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann (2003).	1-13 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b).	1151014 477940
Clark Fork River Basin–Lower Clark Fork River	Bull River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a, Bernall and Locker 2008, Lockard et al. 2008).	1155046 480157
Clark Fork River Basin–Lower Clark Fork River	Cabinet Gorge Reservoir	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Haddix and Gillin (2006), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007a, 2007b, 2008), Moran and Lockard (2005), Moran et al. (2006), Storaasli and Moran 2008, Service (2008c).	Initially identified as a core area (Service 2002a); now considered as part of a core area complex (Service 2006a).	1158731 480360
Clark Fork River Basin–Lower Clark Fork River	Clark Fork River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Haddix and Gillin (2006), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, Stover et al. (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2006, 2007a, 2007b, 2008), Moran and Lockard (2005), Moran et al. (2006), Storaasli and Moran 2008, Service (2008c).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a, Bernall and Locker 2008, Lockard et al. 2008).	1162072 481455.1
Clark Fork River Basin–Lower Clark Fork River	Clark Fork River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Haddix and Gillin (2006), Horn and Tholl 2008,Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, Stover et al. (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2006, 2007a, 2007b, 2008), Moran and Lockard (2005), Moran et al. (2006), Storaasli and Moran 2008, Service (2008c).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a, Bernall and Locker 2008, Lockard et al. 2008).	1162072 481455.2

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lower Clark Fork River	Cooper Gulch	MT	Documented in MFISH database (MFWP 2009a), Storaasli and Moran (2009).	1-6 bull trout redds per year in 6 counts conducted over 2003-2008 (Storaasli and Moran 2009). Important spawning tributary to upper Prospect Creek.	1156046 475445
Clark Fork River Basin–Lower Clark Fork River	Crow Creek	MT	Documented in MFISH database (MFWP 2009a), Storaasli and Moran (2009).	Redds have not been documented despite searches in 2003-2008 (Storaasli and Moran 2009). Occupied by multiple year classes of bull trout and considered important as a cod-water thermal refugia (see comment letter #114, MFWP 2010).	1155434 475384
Clark Fork River Basin–Lower Clark Fork River	Dry Lake Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1139298 472630
Clark Fork River Basin–Lower Clark Fork River	East Fork Bull River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard and Carlson (2005), Lockard and Moran (2006),Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Moran and Storaasli (2005, 2008), Storaasli and Moran 2008).	4-32 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1154653 480630
Clark Fork River Basin–Lower Clark Fork River	East Fork Crow Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	Important SR tributary of Prospect Creek, designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1155575 475245
Clark Fork River Basin–Lower Clark Fork River	Fishtrap Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Liermann (2003), Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	0-17 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1150573 477130
Clark Fork River Basin–Lower Clark Fork River	Flathead River	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting Clark Fork River to local populations designated in the Jocko River headwaters as designated in the draft Bull Trout Recovery Plan (Service 2002a).	1147748 473651

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lower Clark Fork River	Flathead River	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting Clark Fork River to local populations designated in the Jocko River headwaters as designated in the draft Bull Trout Recovery Plan (Service 2002a).	1147748 473651
Clark Fork River Basin–Lower Clark Fork River	Graves Creek	MT	Documented in MFISH database (MFWP 2009a).	5-10 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1154079 476812
Clark Fork River Basin–Lower Clark Fork River	Graves Creek	MT	Documented in MFISH database (MFWP 2009a).	5-10 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1154079 476812
Clark Fork River Basin–Lower Clark Fork River	Jocko River	MT	Documented in MFISH database (MFWP 2009a), Bernall and Lockard (2008).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a, Bernall and Locker 2008, Lockard et al. 2008).	1143035 473218
Clark Fork River Basin–Lower Clark Fork River	McDonald Lake	MT	Hansen and Dos Santos (1997).	Identified as part of a core area complex (Service 2002a).	1139774 474212
Clark Fork River Basin–Lower Clark Fork River	Mission Creek	MT	Documented in MFISH database (MFWP 2009a), .	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142853 473541
Clark Fork River Basin–Lower Clark Fork River	Mission Reservoir	MT	Hansen and Dos Santos (1997).	Identified as part of a core area complex (Service 2002a).	1140083 473192
Clark Fork River Basin–Lower Clark Fork River	North Fork Jocko River	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1139236 472010
Clark Fork River Basin–Lower Clark Fork River	Noxon Rapids Reservoir	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Haddix and Gillin (2006), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007a, 2007b, 2008), Moran and Lockard (2005), Moran et al. (2006), Storaasli and Moran 2008, Service (2008c).	Initially identified as a core area (Service 2002a); now considered as part of a core area complex (Service 2006a).	1156745 478924
Clark Fork River Basin–Lower Clark Fork River	Post Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141680 473603

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lower Clark Fork River	Prospect Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2004b, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	Demonstrated to be an important migratory corridor connecting local population designated in the draft Bull Trout Recovery Plan (Service 2002a) to the Clark Fork River.	1153575 475917.1
Clark Fork River Basin–Lower Clark Fork River	Prospect Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2004b, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	6-20 bull trout redds per year in 7 counts conducted over 2001-2007 (Storaasli and Moran 2008). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1153575 475917.2
Clark Fork River Basin–Lower Clark Fork River	Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008, Service (2006a).	1-6 bull trout redds per year in 5 counts conducted over 2001-2007 (Storaasli and Moran 2008). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1154428 475830
Clark Fork River Basin–Lower Clark Fork River	Saint Mary's Lake	MT	Hansen and Dos Santos (1997).	Identified as part of a core area complex (Service 2002a).	1139227 472614
Clark Fork River Basin–Lower Clark Fork River	South Fork Bull River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	1-10 bull trout redds per year in 7 counts conducted over 2001-2007 (Storaasli and Moran 2008). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1154854 481134
Clark Fork River Basin–Lower Clark Fork River	South Fork Jocko River	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138520 471950
Clark Fork River Basin–Lower Clark Fork River	Swamp Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008,Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b, 2007c), Storaasli and Moran 2008 .	0-7 bull trout redds per year in 6 counts conducted over 2001-2007 (Storaasli and Moran 2008). Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1157000 479220

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Lower Clark Fork River	Thompson River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Liermann (2003), Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	Migratory corridor connecting Clark Fork River to local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1152390 475760
Clark Fork River Basin–Lower Clark Fork River	Vermilion River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	15-53 bull trout redds per year in 7 counts conducted over 2001-2007 (Storaasli and Moran 2008). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1153303 474856
Clark Fork River Basin–Lower Clark Fork River	West Fork Fishtrap Creek	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Liermann (2003), Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	1-13 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1151433 478163
Clark Fork River Basin–Lower Clark Fork River	West Fork Thompson River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Horn and Tholl 2008, Liermann (2003), Lockard et al. (2003, 2008), Lockard Carlson, and Hintz (2004), Lockard, Weltz, and Stender (2004), Moran (2004a, 2005a, 2005b, 2006, 2007b), Storaasli and Moran 2008.	3-14 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1151725 476498

31.4. Middle Clark Fork River Critical Habitat Subunit

The Middle Clark Fork River CHSU is essential to bull trout conservation, primarily as a migratory linkage between the Lower Clark Fork River CHSU and Upper Clark Fork River CHSU. With the removal of Milltown Dam and fish passage at other downstream facilities, such linkage is increasingly important. The migratory corridor that provides for bull trout from Lake Pend Oreille and the Lower Clark Fork River CHSU to access the Blackfoot River, Rock Creek, and potentially Bitterroot River CHSU and Upper Clark Fork River CHSU is critically important. In addition, a number of important spawning and rearing tributaries (e.g., St. Regis River, Fish Creek, and Rattlesnake Creek) enter the Clark Fork in this CHSU. Long-term protection of water quality and quantity, especially satisfactory thermal conditions, are amongst the critical elements of a recovery strategy in the mainstem Clark Fork River corridor. Protecting water quality is especially relevant given the demonstrated effects of climate change related increases in water temperatures, which are approaching summer thermal maxima largely unsuitable for bull trout in this CHSU (see Appendix 1 for more detailed information).

The Middle Clark Fork River CHSU includes the mainstem of the Clark Fork River in western Montana and all its tributary watersheds from the confluence of the Flathead River upstream to the confluence of the Blackfoot River (except for the Bitterroot River drainage, which is its own CHSU). Of the waters located within the Middle Clark Fork River CHSU, 565.4 km (351.3 mi) of streams are designated as critical habitat for bull trout, all occurring in Mineral and Missoula Counties in Montana.

The following water bodies are included in this CHSU (see Table 88):

(A) The Clark Fork River from its confluence with the Flathead River upstream approximately 228.3 km (141.8 mi) to its confluence with the Blackfoot River provides occupied FMO habitat, generally at low bull trout abundance levels.

(B) The Saint Regis River from its confluence with the Clark Fork River upstream 20.2 km (12.5 mi) to its confluence with Twelvemile Creek provides FMO habitat. The headwater portions of the Saint Regis River upstream of Twelvemile Creek, based on updated survey information, are not believed to be occupied by bull trout and hence are not designated as critical habitat. Occupied bull trout spawning and rearing habitat designated as critical habitat extends upstream from its confluence with the Saint Regis River in the following tributaries: Little Joe Creek, from its mouth upstream 4.0 km (2.5 mi) to its forks; South Fork Little Joe Creek from its mouth upstream 14.0 km (8.7 mi) to its headwaters; North Fork Little Joe Creek from its mouth upstream 14.4 km (8.9 mi) to its headwaters; Ward Creek from the St. Regis River upstream 11.5 km (7.2 mi) to its headwaters; and Twelvemile Creek from the St. Regis River upstream 21.6 km (13.4 mi) to its headwaters.

(C) Cedar Creek from its confluence with the Clark Fork River upstream 24.7 km (15.4 mi), Oregon Gulch from its confluence with Cedar Creek upstream 5.4 km (3.3 mi), and Lost Creek from its confluence with Oregon Gulch upstream 10.3 km (6.4 mi) to its headwaters provide spawning and rearing habitat.

(D) Trout Creek from its confluence with the Clark Fork River upstream 23.6 km (14.6 mi) to its upper reaches upstream of Cement Creek provides spawning and rearing habitat.

(E) Fish Creek from its confluence with the Clark Fork River upstream 14.6 km (9.1 mi) to its forks provides FMO habitat. Spawning and rearing habitat extends upstream in the following Fish Creek tributaries: North Fork Fish Creek from its mouth upstream 14.3 km (8.9 mi) to its source; West Fork Fish Creek from its confluence with Fish Creek upstream 28.1 km (17.5 mi) to its source; South Fork Fish Creek from its confluence with Fish Creek upstream 15.6 km (9.7 mi) to its confluence with Cache Creek; and Cache Creek from its confluence with South Fork Fish Creek upstream 15.8 km (9.8 mi) to its headwaters.

(F) Petty Creek from its confluence with the Clark Fork River upstream 18.6 km (11.6 mi) to its headwaters provides spawning and rearing habitat.

(G) Albert Creek from its confluence with the Clark Fork River upstream 16.1 km (10.0 mi) to its source provides spawning and rearing habitat.

(H) Grant Creek from its confluence with the Clark Fork River upstream 27.0 km (16.8 mi) to its headwaters provides spawning and rearing habitat.

(I) Rattlesnake Creek from its confluence with the Clark Fork River upstream provides FMO habitat in its lower reaches (up to Mountain Water Company Dam) and spawning and rearing habitat to its source for a total of 37.5 km (23.3 mi).

Table 88. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Middle Clark Fork River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Middle Clark Fork River	Albert Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1142287 469737
Clark Fork River Basin–Middle Clark Fork River	Cache Creek	MT	Documented in MFISH database (MFWP 2009a).	Considered one of the most important spawning tributaries in the Fish Creek drainage with historical documentation of runs of fluvial bull trout and evidence of recent migratory occupancy based on radioed bull trout from the Clark Fork River (MFWP in litt. 2010).	1146393 468137
Clark Fork River Basin–Middle Clark Fork River	Cedar Creek	MT	Documented in MFISH database (MFWP 2009a).	2-12 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1148625 471781
Clark Fork River Basin–Middle Clark Fork River	Clark Fork River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Schmetterling (2003), Schmetterling and McEvoy (2000).	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1162072 481455
Clark Fork River Basin–Middle Clark Fork River	Fish Creek	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a) to the Clark Fork River.	1146995 470036
Clark Fork River Basin–Middle Clark Fork River	Grant Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1140884 468932
Clark Fork River Basin–Middle Clark Fork River	Little Joe Creek	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting St. Regis River to local populations designated in the draft Bull Trout Recovery Plan (Service 2002a); may occasionally support spawning.	1151202 472968

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Middle Clark Fork River	Lost Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR habitat in the headwaters of Cedar Creek, contributing to designated local populations identified in the draft Bull Trout Recovery Plan (Service 2002a).	1150122 471280
Clark Fork River Basin–Middle Clark Fork River	North Fork Fish Creek	MT	Documented in MFISH database (MFWP 2009a).	1-15 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1148045 469069
Clark Fork River Basin–Middle Clark Fork River	North Fork Little Joe Creek	MT	Documented in MFISH database (MFWP 2009a).	6-12 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b).	1151400 472694
Clark Fork River Basin–Middle Clark Fork River	Oregon Gulch	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1149673 471432
Clark Fork River Basin–Middle Clark Fork River	Petty Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1144460 469924
Clark Fork River Basin–Middle Clark Fork River	Rattlesnake Creek	MT	Documented in MFISH database (MFWP 2009a), Knotek et al. (2004).	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a) to the Clark Fork River.	1139839 468672.1
Clark Fork River Basin–Middle Clark Fork River	Rattlesnake Creek	MT	Documented in MFISH database (MFWP 2009a), Knotek et al. (2004).	12-33 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1139839 468672.2
Clark Fork River Basin–Middle Clark Fork River	Saint Regis River	MT	Documented in MFISH database (MFWP 2009a).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1150891 472969
Clark Fork River Basin–Middle Clark Fork River	South Fork Fish Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1146950 469270
Clark Fork River Basin–Middle Clark Fork River	South Fork Little Joe Creek	MT	Documented in MFISH database (MFWP 2009a).	4-20 bull trout redds per year in 5 counts conducted over 1999-2008 (MFWP 2009b).	1151400 472695

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Middle Clark Fork River	Trout Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1148286 471431
Clark Fork River Basin–Middle Clark Fork River	Twelvemile Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR habitat in the headwaters of the Saint Regis River, contributing to designated local populations identified in the draft Bull Trout Recovery Plan (Service 2002a).	1152909 473494
Clark Fork River Basin–Middle Clark Fork River	Ward Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1152329 473120
Clark Fork River Basin–Middle Clark Fork River	West Fork Fish Creek	MT	Documented in MFISH database (MFWP 2009a).	6-19 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1146955 469271

31.5. Upper Clark Fork River Critical Habitat Subunit

The Upper Clark Fork River CHSU is essential to bull trout conservation because it is the uppermost extension of the migratory habitat for bull trout originating in Lake Pend Oreille or downstream portions of the Clark Fork River. Bull trout population levels are depressed and the habitat is fragmented due mostly to impacts from past land and water use activities. As a result, recovery potential may be limited, but some strongholds remain (e.g., Flint Creek and Warm Springs Creek headwaters) and it's important to secure these strongholds to sustain the genetic attributes those populations may represent. Long-term protection of water quality and quantity, especially satisfactory thermal conditions, are amongst the most important elements of the recovery strategy in the upper Clark Fork River corridor. Recovery is especially relevant given the marginal summer thermal maxima largely unsuitable for bull trout that are frequently recorded in this CHSU (see Appendix 1 for more detailed information).

The Upper Clark Fork River CHSU includes the Clark Fork River headwaters in western Montana upstream from the confluence of the Blackfoot River, with the exception of the Blackfoot River, Clearwater River, and Rock Creek drainages, which are separate CHSUs. Of the waters located within the Upper Clark Fork River CHSU, 441.9 km (274.6 mi) of stream are designated as critical habitat for bull trout in Missoula, Granite, Powell, and Deer Lodge Counties.

The following water bodies are included in this CHSU (see Table 89):

(A) The Clark Fork River from the confluence of the Blackfoot River upstream approximately 207.3 km (128.8 mi) to its confluence with Warm Springs Creek provides FMO habitat for migratory bull trout.

(B) Harvey Creek from its confluence with the Clark Fork River upstream 24.9 km (15.5 mi) to its headwaters provides spawning and rearing habitat.

(C) Flint Creek is occupied by bull trout at low abundance. From its confluence with the Clark Fork River upstream 68.0 km (42.3 mi) to its confluence with Boulder Creek, Flint Creek provides FMO habitat, with spawning and rearing habitat in the upper reaches to its source at Georgetown Lake. Boulder Creek from its confluence with Flint Creek upstream 22.5 km (14.0 mi), and South Boulder Creek from its confluence with Flint Creek upstream 13.7 km (8.5 mi) to their headwater provide spawning and rearing habitat.

(D) The lower 17.0 km (10.6 mi) of Warm Springs Creek functions as FMO habitat. The remaining upper 32.6 km (20.2 mi) of Warm Springs Creek to its headwaters provides occupied migratory and spawning and rearing habitat supporting primarily resident bull trout. Spawning and rearing habitat in the upper tributaries of Warm Springs Creek includes the following: Barker Creek from its confluence with Warm Springs Creek upstream 8.0 km (5.0 mi) to its headwaters at Barker Lake; Foster Creek from its confluence with Warm Springs Creek upstream 15.8 km (9.8 mi) to its headwaters; Twin Lakes Creek from its confluence with Warm Springs Creek upstream 14.5 km (9.0 mi) to its headwaters; and the entire 17.6 km (10.9 mi) of Storm Lake Creek.

Table 89. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Upper Clark Fork River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Upper Clark Fork River	Barker Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on the best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1131154 461629
Clark Fork River Basin–Upper Clark Fork River	Boulder Creek	MT	Documented in MFISH database (MFWP 2009a).	5-18 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132368 464785
Clark Fork River Basin–Upper Clark Fork River	Clark Fork River	MT	Documented in MFISH database (MFWP 2009a), Bernall (2007), Bernall and Lockard (2008), Schmetterling (2003), Schmetterling and McEvoy (2000).	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1162072 481455
Clark Fork River Basin–Upper Clark Fork River	Clark Fork River	MT	Though historically occupied (based on anecdotal information), recent occupancy (since 1973) not demonstrated in MFISH (MFWP 2009a) or other sources. It is believed sporadic occupancy occurs in this reach, but may be undetectable with current sampling regime.	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1162072 481455
Clark Fork River Basin–Upper Clark Fork River	Flint Creek	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1131454 466536.1
Clark Fork River Basin–Upper Clark Fork River	Flint Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1131454 466536.2
Clark Fork River Basin–Upper Clark Fork River	Foster Creek	MT	Documented in MFISH database (MFWP 2009a).	1-12 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b).	1131195 461644
Clark Fork River Basin–Upper Clark Fork River	Harvey Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann et al. (2009).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1133719 467068

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Upper Clark Fork River	South Boulder Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1132143 464412
Clark Fork River Basin–Upper Clark Fork River	Storm Lake Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1132089 461614
Clark Fork River Basin–Upper Clark Fork River	Twin Lakes Creek	MT	Documented in MFISH database (MFWP 2009a).	7-27 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1131525 461688
Clark Fork River Basin–Upper Clark Fork River	Warm Springs Creek	MT	Documented in MFISH database (MFWP 2009a).	8-29 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1127710 461870
Clark Fork River Basin–Upper Clark Fork River	Warm Springs Creek	MT	Though historically occupied (based on anecdotal information), recent occupancy not demonstrated in MFISH (MFWP 2009a) or other sources. It is believed sporadic occupancy occurs in this reach, but may be undetectable with current sampling regime.	Migratory corridor connecting local population designated in the headwaters in the draft Bull Trout Recovery Plan (Service 2002a) with downstream habitat.	1127710 461870

31.6. Bitterroot River Critical Habitat Subunit

The Bitterroot River CHSU is essential to bull trout conservation because it is one of several occupied major watersheds that form the headwaters of the Clark Fork River Basin CHU. Though the migratory form of bull trout is seriously reduced in the Bitterroot River CHSU, an artificially adfluvial population occurs in the Painted Rocks Reservoir core area at the head of the West Fork Bitterroot River and is relatively secure. Improving fish passage conditions in the mainstem Clark Fork River may contribute to a greater future presence of the migratory form of bull trout in the Bitterroot River (see Appendix 1 for more detailed information).

The Bitterroot CHSU includes the entire Bitterroot River drainage along the southwestern border of Montana, upstream from its confluence with the Clark Fork River in Missoula and Ravalli Counties in Montana. Of the waters located within the Bitterroot CHSU, 813.8 km (505.7 mi) of streams and 265 ha (655 ac) of Painted Rocks Reservoir surface area are designated as critical habitat for bull trout.

The following water bodies are included in this CHSU (see Table 90):

(A) The Bitterroot River from its confluence with the Clark Fork River upstream 135.4 km (84.2 mi) to the confluence of the East and West Forks Bitterroot River provides FMO habitat for migratory bull trout.

(B) Lolo Creek from its confluence with the Bitterroot River upstream 48.4 km (30.1 mi) to near its headwaters provides FMO habitat for migratory bull trout. Its tributaries, Mormon Creek upstream 11.3 km (7.0 mi) to its headwaters and South Fork Lolo Creek upstream 20.2 km (12.6 mi) to its headwaters provide spawning and rearing habitat.

(C) Burnt Fork Bitterroot River upstream 24.4 km (15.1 mi) from its confluence with the Bitterroot River to its Middle reaches provides FMO habitat. The upper reaches of the Burnt Fork 16.8 km (10.5 mi) to its headwaters provides spawning and rearing habitat. A tributary, Gold Creek, upstream 4.6 km (2.9 mi) provides spawning and rearing habitat.

(D) Fred Burr Creek from its confluence with the Bitterroot River upstream 4.1 km (2.6 mi) to Fred Burr Reservoir provides FMO habitat and an additional 10.1 km (6.3 mi) of spawning and rearing habitat occurs upstream of the reservoir in its headwaters.

(E) Blodgett Creek upstream 30.6 km (19.1 mi) from its confluence with the Bitterroot River to near its headwaters provides both FMO and spawning and rearing habitat.

(F) Skalkaho Creek from its confluence with the Bitterroot River upstream 38.5 km (23.9 mi) to its headwaters and its tributaries, Daly Creek from its confluence with Skalkaho Creek upstream 13.6 km (8.5 mi) to Skalkaho Falls and Railroad Creek from its confluence with Skalkaho Creek upstream 5.8 km (3.6 mi) to its source provide spawning and rearing habitat.

(G) Sleeping Child Creek from its confluence with the Bitterroot River upstream 38.5 km (23.9 mi) to its headwaters and its tributaries, Two Bear Creek from its confluence with Sleeping Child Creek upstream 10.7 km (6.7 mi) to its source and Divide Creek from its confluence with Sleeping Child Creek upstream 14.7 km (9.2 mi) to its source provide spawning and rearing habitat.

(H) Lost Horse Creek from its confluence with the Bitterroot River upstream 31.2 km (19.3 mi) provides FMO habitat in its lower reaches and spawning and rearing habitat in its upper reaches to near its source.

(I) Tin Cup Creek from its confluence with the Bitterroot River upstream 20.1 km (12.5 mi) provides FMO habitat in its lower reaches and spawning and rearing habitat in its upper reaches to near its confluence with the outlet stream from Kerlee Lake.

(J) The West Fork of the Bitterroot River from its confluence with the East Fork upstream 35.9 km (22.3 mi) to Painted Rocks Reservoir provides FMO and spawning and rearing habitat. Spawning and rearing habitat also extends upstream in the following tributaries: Boulder Creek from its confluence with the West Fork Bitterroot River upstream 4.2 km (2.6 mi) to Boulder Creek Falls and Nez Perce Fork upstream 20.0 km (12.4 mi) from its confluence with the West Fork to near its headwaters.

(K) The East Fork Bitterroot River from its confluence with the West Fork, which forms the Bitterroot River, upstream 59.3 km (36.9 mi) to its headwaters provides FMO habitat. Spawning and rearing habitat extends upstream in the following tributaries: Warm Springs Creek from its confluence with the East Fork Bitterroot River upstream 17.0 km (10.6 mi) to near its source; Tolan Creek from its confluence with the East Fork Bitterroot River upstream 12.3 km (7.7 mi) to near its source; Meadow Creek from its confluence with the East Fork Bitterroot River upstream 13.7 km (8.5 mi) to its headwaters; Moose Creek from its confluence with the East Fork Bitterroot River upstream 10.6 km (6.6 mi) to a natural barrier in its upper reaches; Martin Creek from its confluence with Moose Creek upstream 14.9 km (9.3 mi) to its headwaters; Lick Creek from its confluence with Moose Creek upstream 3.2 km (2.0 mi) to its headwaters; and Reynolds Creek from its confluence with Moose Creek upstream 3.4 km (2.1 mi) to its source.

(L) Painted Rocks Reservoir (265 ha (655 ac)) located in its headwaters of the West Fork Bitterroot River is FMO habitat for an artificially isolated adfluvial migratory population of bull trout (formerly fluvial and part of the Bitterroot River core area prior to construction of the dam). Tributary stream segments provide spawning and rearing habitat and because the populations are isolated from two-way connectivity by West Fork Dam, Painted Rocks is considered a separate core area. The West Fork of the Bitterroot River upstream 24.1 km (15.0 mi) from Painted Rocks Reservoir and the following tributaries are all considered spawning and rearing habitat: Little Boulder Creek from its confluence with Painted Rocks Reservoir upstream 4.7 km (2.9 mi) to its upper reaches; Slate Creek from its confluence with Painted Rocks Reservoir upstream 14.1 km (8.8 mi) to its source; Blue Joint Creek from its confluence with Painted Rocks Reservoir upstream 28.0 km (17.4 mi) to a natural barrier near its headwaters; Overwhich Creek from its confluence with the West Fork Bitterroot River upstream 23.2 km (14.4 mi) to a natural barrier; Hughes Creek from its confluence with the West Fork Bitterroot River upstream 26.1 km (16.2 mi) to its source; and Deer Creek from its confluence with the West Fork Bitterroot River upstream 20.1 km (12.5 mi) to its headwaters.

Table 90. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Bitterroot River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Bitterroot River	Bitterroot River	MT	Documented in MFISH database (MFWP 2009a).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1141176 468612
Clark Fork River Basin–Bitterroot River	Blodgett Creek	MT	Documented in MFISH database (MFWP 2009a), Brassfield et al. (2006).	Migratory corridor connecting Bitterroot River to a local population designated in the draft Bull Trout Recovery Plan (Service 2002a).	1141549 462939.1
Clark Fork River Basin–Bitterroot River	Blodgett Creek	MT	Documented in MFISH database (MFWP 2009a), Brassfield et al. (2006).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141549 462939.2
Clark Fork River Basin–Bitterroot River	Blue Joint Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142932 456998
Clark Fork River Basin–Bitterroot River	Boulder Creek	MT	Documented in MFISH database (MFWP 2009a), Brassfield et al. (2006).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1142382 458169
Clark Fork River Basin–Bitterroot River	Burnt Fork Bitterroot River	MT	Documented in MFISH database (MFWP 2009a), Leary et al. (2009).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140989 465421.1
Clark Fork River Basin–Bitterroot River	Burnt Fork Bitterroot River	MT	Documented in MFISH database (MFWP 2009a), Leary et al. (2009).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1140989 465421.2
Clark Fork River Basin–Bitterroot River	Daly Creek	MT	Documented in MFISH database (MFWP 2009a), Leary et al. (2009).	30-77 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b).	1139104 461683
Clark Fork River Basin–Bitterroot River	Deer Creek	MT	Documented in MFISH database (MFWP 2009a).	3-16 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143196 455947

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Bitterroot River	Divide Creek	MT	Documented in MFISH database (MFWP 2009a).	See text for rationale for this CHSU	1139670 460639
Clark Fork River Basin–Bitterroot River	East Fork Bitterroot River	MT	Documented in MFISH database (MFWP 2009a).	0-5 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1141266 459399
Clark Fork River Basin–Bitterroot River	Fred Burr Creek	MT	Documented in MFISH database (MFWP 2009a).	Migratory corridor connecting Bitterroot River to a local population designated in the draft Bull Trout Recovery Plan (Service 2002a).	1141519 463483.1
Clark Fork River Basin–Bitterroot River	Fred Burr Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141519 463483.2
Clark Fork River Basin–Bitterroot River	Gold Creek	MT	Documented in MFISH database (MFWP 2009a).	See text for rationale for this CHSU	1139022 463982
Clark Fork River Basin–Bitterroot River	Hughes Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143030 456220
Clark Fork River Basin–Bitterroot River	Lick Creek	MT	Documented in MFISH database (MFWP 2009a).	See text for rationale for this CHSU	1137168 459384
Clark Fork River Basin–Bitterroot River	Little Boulder Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142804 457177
Clark Fork River Basin–Bitterroot River	Lolo Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1140604 467428

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Bitterroot River	Lost Horse Creek	MT	Documented in MFISH database (MFWP 2009a), Brassfield et al. (2006).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1141716 461183.1
Clark Fork River Basin–Bitterroot River	Lost Horse Creek	MT	Documented in MFISH database (MFWP 2009a), Brassfield et al. (2006).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1141716 461183.2
Clark Fork River Basin–Bitterroot River	Martin Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of East Fork Bitterroot River, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137233 459296
Clark Fork River Basin–Bitterroot River	Meadow Creek	MT	Documented in MFISH database (MFWP 2009a).	1-21 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1137797 459077
Clark Fork River Basin–Bitterroot River	Moose Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of East Fork Bitterroot River, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137307 459222
Clark Fork River Basin–Bitterroot River	Mormon Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations (SR tributary of Lolo Creek) for future plan revisions (Service in litt. 2009a).	1141137 467558
Clark Fork River Basin–Bitterroot River	Nez Perce Fork	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1142668 458016

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Bitterroot River	O'Brien Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1155157 482654
Clark Fork River Basin–Bitterroot River	Overwhich Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143062 456745
Clark Fork River Basin–Bitterroot River	Painted Rocks Reservoir	MT	Documented in MFISH database (MFWP 2009a).	Identified as a core area (Service 2002a).	1142938 457007
Clark Fork River Basin–Bitterroot River	Railroad Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of Skalkaho Creek, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138846 461578
Clark Fork River Basin–Bitterroot River	Reynolds Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of East Fork Bitterroot River, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137169 459469
Clark Fork River Basin–Bitterroot River	Skalkaho Creek	MT	Documented in MFISH database (MFWP 2009a), Leary et al. (2009), Nelson et al. (2002).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141619 462196
Clark Fork River Basin–Bitterroot River	Slate Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142928 457005
Clark Fork River Basin–Bitterroot River	Sleeping Child Creek	MT	Documented in MFISH database (MFWP 2009a), Nelson et al. (2002).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141584 461614
Clark Fork River Basin–Bitterroot River	South Fork Lolo Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations (SR tributary of Lolo Creek) for future plan revisions (Service in litt. 2009a).	1142641 467622

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Bitterroot River	Tin Cup Creek	MT	Documented in MFISH database (MFWP 2009a).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations for future plan revisions (Service in litt. 2009a).	1141674 460164
Clark Fork River Basin–Bitterroot River	Tolan Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of East Fork Bitterroot River, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1139118 458563
Clark Fork River Basin–Bitterroot River	Two Bear Creek	MT	Documented in MFISH database (MFWP 2009a).	Important portion of the SR complex located in the headwaters of Sleeping Child Creek, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1140084 461113
Clark Fork River Basin–Bitterroot River	Warm Springs Creek	MT	Documented in MFISH database (MFWP 2009a).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1140250 458601
Clark Fork River Basin–Bitterroot River	West Fork Bitterroot River	MT	Documented in MFISH database (MFWP 2009a).	2-5 bull trout redds per year in 2 counts conducted over 1999-2000 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141267 459398

31.7. Rock Creek Critical Habitat Subunit

The Rock Creek CHSU is essential to bull trout conservation because it is one of several occupied major watersheds that form the headwaters of the Clark Fork River Basin CHU. Most of the drainage is on National Forest System lands and habitat protection has historically been emphasized. Extensive networks of spawning and rearing habitat have contributed to a relatively strong bull trout population in the watershed. However, concerns exist about declines in bull trout populations and increases in nonnative competitors (e.g., brook trout and brown trout) seen in the past decade. The Rock Creek CHSU remains a strong bull trout refugium in the Clark Fork River headwaters and will become increasingly important as improving fish passage conditions in the mainstem Clark Fork River contribute to greater future presence of the migratory form (see Appendix 1 for more detailed information).

The Rock Creek CHSU includes the entire watershed of Rock Creek in Missoula and Granite Counties in Montana from its confluence with the Clark Fork River to its headwaters. Within the Rock Creek CHSU, 345.9 km (214.9 mi) of streams and 170 ha (420 ac) of East Fork Reservoir surface area are designated as bull trout critical habitat.

The following water bodies are included in this CHSU (see Table 91):

(A) Rock Creek from its confluence with the Clark Fork River upstream 83.4 km (51.8 mi) to its headwater forks provides FMO habitat for bull trout.

Tributaries described below in (B) through (H) provide spawning and rearing habitat for a mix of both migratory and resident bull trout populations found throughout the Rock Creek drainage:

(B) Ranch Creek from its confluence with Rock Creek upstream 16.8 km (10.4 mi) to its headwaters.

(C) Welcome Creek from its confluence with Rock Creek upstream 8.5 km (5.3 mi) to its headwaters.

(D) Butte Cabin Creek from its confluence with Rock Creek upstream 10.2 km (6.3 mi) to its headwaters.

(E) Alder Creek from its confluence with Rock Creek upstream 6.1 km (3.8 mi) to its headwaters.

(F) Hogback Creek from its confluence with Rock Creek upstream 7.3 km (4.6 mi) to its headwaters.

(G) Stony Creek from its confluence with Rock Creek upstream 18.1 km (11.2 mi) to its source and its tributary Little Stony Creek from its confluence with Stony Creek upstream 8.3 km (5.2 mi) to its source.

(H) West Fork Rock Creek from its confluence with Rock Creek upstream 35.8 km (22.2 mi) to its headwaters and its tributaries, Ross Fork Rock Creek, from its confluence with West Fork Rock Creek upstream 33.9 km (21.1 mi) to its headwaters; North Fork Rock Creek from its confluence with West Fork Rock Creek upstream 5.6 km (3.5 mi) to its headwaters; Sand Basin Creek from its confluence with West Fork Rock Creek upstream 7.6 km (4.7 mi) to its headwaters, and Bowles Creek from its confluence with West Fork Rock Creek upstream 6.8 km (4.2 mi) to its headwaters.

(I) Middle Fork Rock Creek upstream 37.1 km (23.0 mi) from its confluence with East Fork Rock Creek (forming the mainstem Rock Creek) to its source and its tributaries, Copper Creek upstream 19.2 km (11.9 mi) and Carpp Creek upstream 11.6 km (7.2 mi), to their sources.

(J) East Fork Rock Creek upstream to East Fork Dam and beyond (22.5 km (14.0 mi)) is occupied FMO and spawning and rearing habitat. Its tributary, Meadow Creek, provides 7.2 km (4.5 mi) of spawning and rearing habitat. East Fork Reservoir (170 ha (420 ac)) provides FMO habitat and its headwaters of East Fork Rock Creek are used for spawning and rearing. There is currently no upstream fish passage at the dam.

Table 91. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Rock Creek CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Rock Creek	Alder Creek	MT	Documented in MFISH database (MFWP 2009a).	2-28 bull trout redds per year in 9 counts conducted over 1996-2009 (MFWP 2009b).	1137765 464707
Clark Fork River Basin–Rock Creek	Bowles Creek	MT	Documented in MFISH database (MFWP 2009a).	Redds not documented but likely, based on observations of multiple year classes of juvenile fish.	1137473 461920
Clark Fork River Basin–Rock Creek	Butte Cabin Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	0-16 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137673 465199
Clark Fork River Basin–Rock Creek	Carpp Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	8-32 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1135243 460327
Clark Fork River Basin–Rock Creek	Copper Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	4-16 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1135375 460824
Clark Fork River Basin–Rock Creek	East Fork Reservoir	MT	Documented in MFISH database (MFWP 2009a).	On-stream reservoir on East Fork Rock Creek, a designated local population (Service 2002a).	1133746 461182
Clark Fork River Basin–Rock Creek	East Fork Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	6-49 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1134991 462000
Clark Fork River Basin–Rock Creek	Hogback Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	1-11 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137016 464098
Clark Fork River Basin–Rock Creek	Little Stony Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	0-29 bull trout redds per year in 12 counts conducted over 1998-2009 (MFWP 2009b).	1136814 462931
Clark Fork River Basin–Rock Creek	Meadow Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann et al. (2009).	0-14 bull trout redds per year in 8 counts conducted over 1995-2004 (MFWP 2009b). Increasing importance as a migratory spawning tributary once passage is provided over East Fork Dam.	1134393 461570

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Rock Creek	Middle Fork Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	7-33 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135214 462237
Clark Fork River Basin–Rock Creek	North Fork Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann et al. (2009). Mud lake in headwaters also supports bull trout.	Increasing importance as a migratory spawning tributary with recent passage improvements.	1136963 462126
Clark Fork River Basin–Rock Creek	Ranch Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	7-25 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136697 465911
Clark Fork River Basin–Rock Creek	Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1136831 467256
Clark Fork River Basin–Rock Creek	Ross Fork	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001).	2-11 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135246 462245
Clark Fork River Basin–Rock Creek	Sand Basin Creek	MT	Documented in MFISH database (MFWP 2009a), Liermann et al. (2009).	Increasing importance as a migratory spawning tributary with recent habitat improvements.	1137031 461972
Clark Fork River Basin–Rock Creek	Stony Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	10-37 bull trout redds per year in 10 counts conducted over 1999-2008, including Little Stony (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136033 463487
Clark Fork River Basin–Rock Creek	Welcome Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	2-15 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137009 465612
Clark Fork River Basin–Rock Creek	West Fork Rock Creek	MT	Documented in MFISH database (MFWP 2009a), Carnefix (2001), Liermann et al. (2009).	0-3 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135215 462237

31.8. Blackfoot River Critical Habitat Subunit

The Blackfoot River CHSU is essential to bull trout conservation because it is one of several occupied major watersheds that form the headwaters of the Clark Fork River Basin CHU. Several decades of extensive habitat restoration and habitat protection efforts (e.g., Blackfoot Challenge) have led to gradually improving conditions for native fish, especially on private lands. Landownership patterns that include large undeveloped ranches and extensive conservation easements provide long-term habitat security. The Blackfoot River CHSU is the strongest bull trout refugium in the Clark Fork River headwaters and will become increasingly important as improving fish passage conditions in the mainstem Clark Fork River contribute to greater future connectivity for the migratory life history form (see Appendix 1 for more detailed information).

The Blackfoot River CHSU include the entire Blackfoot River drainage of western Montana, located in Missoula, Powell, and Lewis and Clark Counties, with the exception of its tributaries in the Clearwater River, which forms its own CHSU. Of the waters located within the Blackfoot River CHSU, 446.3 km (277.3 mi) of streams are designated as bull trout critical habitat.

The following water bodies are included in this CHSU (see Table 92):

(A) The Blackfoot River from its confluence with the Clark Fork River upstream 191.0 km (118.7 mi) to near its headwaters (to the confluence of Alice Creek) provides mainly FMO habitat for bull trout. The very headwater reach of the Blackfoot River upstream of Alice Creek 9.2 km (5.7 mi) to its source provides spawning and rearing habitat.

The following tributaries within the Blackfoot River Drainage provide spawning and rearing habitat for bull trout populations:

(B) Gold Creek from its confluence with the Blackfoot River upstream 19.4 km (12.1 mi) to a barrier falls near the Lolo National Forest boundary and its tributary the entire West Fork of Gold Creek upstream for 13.0 km (8.1 mi).

(C) Belmont Creek from its confluence with the Blackfoot River upstream 13.5 km (8.4 mi) to its source.

(D) Cottonwood Creek from its confluence with the Blackfoot River upstream 23.6 km (14.7 mi) to its source at Cottonwood Lake.

(E) Monture Creek from its confluence with the Blackfoot River upstream 40.2 km (25.0 mi) to its headwaters; its tributary Dunham Creek from its confluence with Monture Creek upstream 23.2 km (14.4 mi) to its headwaters; and its tributary Lodgepole Creek from its confluence with Dunham Creek upstream 11.7 km (7.2 mi) to its source.

(F) The North Fork Blackfoot River from its confluence with the Blackfoot River upstream 40.9 km (25.4 mi) to a natural barrier at North Fork Falls.

(G) Poorman Creek from its confluence with the Blackfoot River upstream 18.9 km (11.8 mi) to its headwaters.

(H) The Landers Fork from its confluence with the Blackfoot River upstream 18.1 km (11.2 mi) to a barrier falls near the confluence of Byrnes Creek (just downstream from the Scapegoat

Wilderness) and its tributary, Copper Creek, from its confluence with Landers Fork upstream 23.6 km (14.7 mi) to its headwaters.

Table 92. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Blackfoot River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Blackfoot River	Belmont Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	3-11 bull trout redds per year in 5 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135693 469538
Clark Fork River Basin–Blackfoot River	Blackfoot River	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006), Schmetterling (2003), Schmetterling and McEvoy (2000).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1138907 468712.1
Clark Fork River Basin–Blackfoot River	Blackfoot River	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a). May occasionally support spawning.	1138907 468712.2
Clark Fork River Basin–Blackfoot River	Copper Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	4-34 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1125550 470066
Clark Fork River Basin–Blackfoot River	Cottonwood Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132811 470250
Clark Fork River Basin–Blackfoot River	Dunham Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	4-11 bull trout redds per year in 6 counts conducted over 1999-2008 (MFWP 2009b).	1131556 471026
Clark Fork River Basin–Blackfoot River	Gold Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	1-30 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136765 469186
Clark Fork River Basin–Blackfoot River	Landers Fork	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1125621 469656
Clark Fork River Basin–Blackfoot River	Lodgepole Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	Important portion of the SR complex located in the headwaters of Monture Creek, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132027 471824

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Blackfoot River	Monture Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	18-94 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132358 470199
Clark Fork River Basin–Blackfoot River	North Fork Blackfoot River	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	41-123 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1131290 469848
Clark Fork River Basin–Blackfoot River	Poorman Creek	MT	Documented in MFISH database historically (1972 and 1989; MFWP 2009a), but not recently (2007; Pierce et al. 2008).	Determined to be a second highest tier restoration priority and likely to support migratory bull trout spawning in the future (Pierce et al. 2008).	1126887 469363
Clark Fork River Basin–Blackfoot River	West Fork Gold Creek	MT	Documented in MFISH database (MFWP 2009a), Pierce et al. (2004), Pierce and Podner (2006).	Designated as a local population (Gold Creek) in the draft Bull Trout Recovery Plan (Service 2002a).	1136852 469960

31.9. Clearwater River and Lakes Critical Habitat Subunit

The Clearwater River and Lakes CHSU is essential to bull trout conservation and a significant bull trout resource in a somewhat unique habitat, a chain of connected lakes, each with separate bull trout populations that share an interconnected system of spawning and rearing streams. To date, the lakes have not been compromised by introduction of nonnative lake trout (though northern pike (*Esox lucius*) are problematic), making the CHSU important for the long-term persistence of the naturally occurring adfluvial life history form of bull trout in the Clark Fork River drainage. Improved fish passage over a series of small barrier dams is being implemented and shows promise to increase the security and stability of bull trout populations in this unique stream–lake system (see Appendix 1 for more detailed information).

The Clearwater River and Lakes CHSU includes the Clearwater River basin, a tributary to the Blackfoot River drainage in Missoula and Powell Counties in Montana. Of the waters located within the Clearwater CHSU, 160.8 km (99.9 mi) of streams and 1,107 ha (2,735 ac) of lake surface area in eight lakes are designated as critical habitat for bull trout.

The following water bodies are included in this CHSU (see Table 93):

(A) Salmon Lake (263 ha (650 ac)) provides FMO habitat for populations of bull trout that spawn in upstream tributaries.

(B) The Clearwater River from its downstream juncture with Salmon Lake upstream to its source in Clearwater Lake provides FMO and spawning and rearing habitat for bull trout. FMO habitat for bull trout populations occurs in a 48.3 km (30.0 mi) reach of the Clearwater River downstream of its confluence with the East Fork Clearwater River. Upstream from its confluence with the East Fork Clearwater River, 9.5 km (5.9 mi) of the mainstem Clearwater River is used for spawning and rearing.

(C) Placid Lake (76 ha (187 ac)) provides FMO habitat. Placid Creek from its confluence with Placid Lake upstream 15.3 km (9.5 mi) to its headwaters provides spawning and rearing habitat as does its tributary Boles Creek from its confluence with Placid Creek upstream 16.4 km (10.2 mi) to its headwaters.

(D) Morrell Creek from its confluence with the Clearwater River upstream 29.3 km (18.2 mi) to its headwaters provides spawning and rearing habitat.

(E) Seeley Lake (415 ha (1,025 ac)) provides FMO habitat for the Clearwater River FMO. Spawning and rearing habitat is in the West Fork Clearwater River or other upstream tributaries.

(F) The West Fork Clearwater River upstream 17.5 km (10.9 mi) from its confluence with the Clearwater River to the confluence of Marshall Creek provides FMO habitat. Spawning and rearing habitat occurs in the upper 5.6 km (3.5 mi) to its headwaters.

(G) Marshall Lake (34 ha (85 ac)) is a small lake on Marshall Creek. It is considered FMO habitat for bull trout and Marshall Creek from the lake upstream 7.0 km (4.3 mi) to its headwaters provides bull trout spawning and rearing habitat. The lower reaches of Marshall Creek, from the West Fork Clearwater River upstream 4.0 km (2.5 mi) to Marshall Lake provides bull trout FMO habitat.

(H) Lake Inez (119 ha (294 ac)); Lake Alva (121 ha (299 ac)); Rainy Lake (28 ha (69 ac)); and Clearwater Lake (51 ha (126 ac)), interconnected by the Clearwater River, provide FMO habitat for bull trout. Spawning and rearing occurs in connected headwater tributaries.

(I) The East Fork Clearwater River from its confluence with the Clearwater River upstream 8.0 km (4.9 mi) to its headwaters provides spawning and rearing habitat.

Table 93. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Clearwater River and Lakes CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Clearwater River and Lakes	Boles Creek	MT	Documented in MFISH database (MFWP 2009a) and Pierce et al. (2008).	High biological ranking and priority for restoration (Pierce et al. 2008) with multiple year classes of bull trout present.	1135461 471190
Clark Fork River Basin–Clearwater River and Lakes	Clearwater Lake	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135599 473854
Clark Fork River Basin–Clearwater River and Lakes	Clearwater River	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a). May occasionally support spawning.	1133776 469644.1
Clark Fork River Basin–Clearwater River and Lakes	Clearwater River	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a). May occasionally support spawning.	1133776 469644.2
Clark Fork River Basin–Clearwater River and Lakes	Clearwater River, E Fk	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Important portion of the SR complex located in the headwaters of Clearwater River, a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135807 473523
Clark Fork River Basin–Clearwater River and Lakes	Lake Alva	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135824 473134
Clark Fork River Basin–Clearwater River and Lakes	Lake Inez	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135668 472816
Clark Fork River Basin–Clearwater River and Lakes	Lake Marshall	MT	Documented in MFISH database (MFWP 2009a), Berg, R.K. (2003).	On-stream lake on Marshall Creek, a recent evaluation led to recommendation to add this stream to the list of designated important local populations and further consider Marshall Lake as a separate core area (Service in litt. 2009a).	1136502 472882

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Clearwater River and Lakes	Marshall Creek (lower)	MT	Not documented in electrofishing surveys in MFISH database (MFWP 2009a), but documented use by migratory adult fish through radio telemetry (Benson 2009).	Important migratory corridor linking to West Fork Clearwater River (Benson 2009).	1135966 472791
Clark Fork River Basin–Clearwater River and Lakes	Marshall Creek (upper)	MT	Documented in MFISH database (MFWP 2009a), Berg, R.K. (2003).	Although not initially designated as a local population (Service 2002a), more recent analysis based on best available science has resulted in a recommendation to add this stream to the list of designated important local populations and further consideration as its own core area for future plan revisions (Service in litt. 2009a).	1135966 472791
Clark Fork River Basin–Clearwater River and Lakes	Morrell Creek	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	4-33 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1134599 471410
Clark Fork River Basin–Clearwater River and Lakes	Placid Creek	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135205 471177
Clark Fork River Basin–Clearwater River and Lakes	Placid Lake	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135253 471186
Clark Fork River Basin–Clearwater River and Lakes	Rainy Lake	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135947 473393
Clark Fork River Basin–Clearwater River and Lakes	Salmon Lake	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1134043 470933
Clark Fork River Basin–Clearwater River and Lakes	Seeley Lake	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009c).	Identified as part of a core area complex (Service 2002a).	1135103 471940
Clark Fork River Basin–Clearwater River and Lakes	West Fork Clearwater River	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	Important portion of the SR complex located in the headwaters of Clearwater River (Benson 2009), a designated local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135504 472559.1

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Clearwater River and Lakes	West Fork Clearwater River	MT	Documented in MFISH database (MFWP 2009a), Benson (2009), Berg, R.K. (2003), MFWP (2008, 2009b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135504 472559.2

31.10. Flathead Lake, Flathead River, and Headwater Lakes Critical Habitat Subunit

The Flathead CHSU is essential to bull trout conservation and includes Flathead Lake (the largest freshwater lake in the western United States), which historically provided FMO habitat for a very large population of adfluvial migratory bull trout that traveled up to 241 km (150 mi) upstream in three major forks (North, Middle, and South) to spawn and rear in over 20 streams, including a portion of the North Fork Flathead River in British Columbia, Canada. Along with Lake Pend Oreille in Idaho, it could be argued that Flathead Lake represents the evolutionary heart of the migratory adfluvial bull trout life history form. Due to the size and scope of this bull trout core area, it is essential to recovery. In addition, about 20 separate headwater lakes are arrayed in 15 core areas with varying degrees of connectivity, and they provide resiliency and redundancy to support the bull trout network in this CHSU. Many of these are in protected and unaltered habitat within Glacier National Park. An extensive network of high-quality spawning and rearing habitat, including many streams with groundwater influence, have historically contributed to a relatively strong bull trout population in the CHSU and may make this CHSU one of the more important bull trout complexes under a variety of changing climate scenarios. However, widespread negative influence of nonnative lake trout introduction and their ongoing expansion has seriously curtailed the existing bull trout productivity in much of this CHSU (see Appendix 1 for more detailed information).

The Flathead CHSU include the entire Flathead River basin upstream from Kerr Dam (outlet of Flathead Lake), with the exception of the Swan River drainage (upstream from Bigfork Dam) and the South Fork Flathead River drainage (upstream from Hungry Horse Dam), which form separate CHSUs. The Flathead CHSU is located in Flathead and Lake Counties in Montana. Flathead Lake is the largest natural freshwater lake in the western United States.

Of the waters located within the Flathead CHSU, 857.6 km (532.9 mi) of streams and 57,085 ha (141,069 ac) of lake and reservoir surface area in 21 lakes are designated as critical habitat for bull trout.

The following water bodies are included in this CHSU (see Table 94):

(A) The entire Flathead Lake basin (49,854 ha (123,190 ac)) to the high water mark provides FMO habitat for at least 18 upstream local populations of bull trout.

(B) The Flathead River from its confluence with Flathead Lake upstream 85.4 km (53.1 mi) to its forks; the Middle Fork Flathead River from its confluence with the North Fork upstream 140.2 km (87.1 mi) to its headwaters; and the North Fork Flathead River from its confluence with the Middle Fork upstream 92.7 km (57.6 mi) to the Canadian border provide FMO habitat for these local populations of bull trout.

Tributaries to the Middle Fork Flathead River described in (C) through (M) provide spawning and rearing habitat upstream for local bull trout populations that share FMO habitat in Flathead Lake, the Flathead River, and its forks:

(C) Nyack Creek from its confluence with the Middle Fork Flathead River upstream 11.4 km (7.1 mi) to a barrier falls.

(D) Park Creek from its confluence with the Middle Fork Flathead River upstream 20.1 km (12.5 mi) to a barrier falls near the upper National Park Service patrol cabin.

(E) Ole Creek from its confluence with the Middle Fork Flathead River upstream 12.7 km (7.9 mi) to a naturally dewatered reach near the trail junction, just upstream of Debris Creek.

(F) Bear Creek from its confluence with the Middle Fork Flathead River upstream 17.8 km (11.0 mi) to a barrier near the confluence of Skyland Creek.

(G) Long Creek from its confluence with the Middle Fork Flathead River upstream approximately 8.3 km (5.2 mi).

(H) Granite Creek from its confluence with the Middle Fork Flathead River upstream 13.1 km (8.2 mi) to its headwaters.

(I) Morrison Creek from its confluence with the Middle Fork Flathead River upstream 22.1 km (13.7 mi) to its headwaters and its tributary, Lodgepole Creek, from its confluence with Morrison Creek upstream 12.5 km (7.8 mi) to its headwaters.

(J) Schafer Creek from its confluence with the Middle Fork Flathead River upstream 5.9 km (3.7 mi) to a natural barrier near the confluence of Rouge Creek and its tributary, Dolly Varden Creek, from its confluence with Schafer Creek upstream 12.1 km (7.5 mi) to Dolly Varden Falls near the confluence of Argosy Creek.

(K) Clack Creek from its confluence with the Middle Fork Flathead River upstream 4.0 km (2.5 mi) to a natural barrier (approximately one-third the distance up its watershed to a point near the trail junction to Trilobite Lakes).

(L) Bowl Creek from its confluence with the Middle Fork Flathead River upstream 7.9 km (4.9 mi) to its confluence with Basin Creek and its tributaries, Basin Creek from its confluence with Bowl Creek upstream 10.1 km (6.3 mi) to a natural barrier in its upper reaches and Scalp Creek from its confluence with Bowl Creek upstream 4.6 km (2.9 mi) to its headwaters.

(M) Strawberry Creek from its confluence with the Middle Fork Flathead River upstream 18.5 km (11.5 mi) to its headwaters and its tributaries, Trail Creek from its confluence with Strawberry Creek upstream 7.3 km (4.5 mi) to its confluence with Jeff Creek; Gateway Creek from its confluence with Strawberry Creek upstream 9.3 km (5.8 mi) to its headwaters; and East Fork Strawberry Creek from its confluence with Strawberry Creek upstream 4.9 km (3.1 mi) to its headwaters.

Tributaries to the North Fork Flathead River described in (N) through (S) provide spawning and rearing habitat upstream for local bull trout populations that share FMO habitat in Flathead Lake, the Flathead River, and its forks:

(N) Big Creek from its confluence with the North Fork Flathead River upstream 25.3 km (15.7 mi) to its source and its tributaries and Hallowat Creek from its confluence with Big Creek upstream 11.7 km (7.2 mi) to its headwaters.

(O) Coal Creek from its confluence with the North Fork Flathead River upstream 32.3 km (20.1 mi) to its headwaters and its tributaries, Cyclone Creek from its confluence with Coal Creek upstream 7.3 km (4.6 mi) to Cyclone Lake; Dead Horse Creek from its confluence with Coal Creek upstream 1.6 km (1.0 mi) to natural barriers in its lower reaches; South Fork Coal Creek from its confluence with Coal Creek upstream 10.2 km (6.3 mi) to a natural barrier;

and Mathias Creek from its confluence with South Fork Coal Creek upstream 4.6 km (2.9 mi) to a natural barrier.

(P) Red Meadow Creek from its confluence with the North Fork Flathead River upstream 19.0 km (11.8 mi) to its source at Red Meadow Lake.

(Q) Whale Creek from its confluence with the North Fork Flathead River upstream 22.9 km (14.3 mi) to Whale Creek Falls, as well as 4.4 km (2.7 mi) of its tributary Shorty Creek, to its headwaters.

(R) Trail Creek from its confluence with the North Fork Flathead River upstream 13.3 km (8.3 mi) to a natural barrier near the confluence of Thoma Creek.

(S) Kishinehn Creek from its confluence with the North Fork Flathead River upstream 8.3 km (5.2 mi) to where it crosses the international border into Canada.

The lakes and their upstream occupied tributary segments described in (T) through (II) are designated as bull trout critical habitat. These bull trout populations are isolated to varying degrees from being fully-connected with Flathead Lake and are considered separate core areas because of that isolation.

(T) Whitefish Lake (1,356 ha (3,351 ac)) provides FMO habitat. Swift Creek from Whitefish Lake upstream 26.5 km (16.5 mi) to the confluence of its West Fork provides FMO habitat in the lower reaches and spawning and rearing habitat in the upper reaches. West Fork Swift Creek from its confluence with Swift Creek upstream 12.6 km (7.8 mi) to its headwaters provides spawning and rearing habitat.

(U) Upper Whitefish Lake (36 ha (89 ac)) provides FMO habitat. East Fork Swift Creek from its confluence with Upper Whitefish Lake upstream 9.5 km (5.9 mi) to its headwaters provides spawning and rearing habitat.

(V) Upper Stillwater Lake (225 ha (556 ac)) provides FMO habitat. The Stillwater River from its confluence with Stillwater Lake upstream 35.3 km (21.9 mi) to its headwaters provides FMO habitat in the lower reaches and spawning and rearing habitat in the upper reaches. Its tributary, Fitzsimmons Creek, from its confluence with the Stillwater River upstream 9.5 km (5.9 mi) to its headwaters provides spawning and rearing habitat.

(W) Lake McDonald (2,761 ha (6,823 ac)) provides FMO habitat as does 6.4 km (4.0 mi) of its tributary, McDonald Creek, from the Middle Fork Flathead River to Lake McDonald and from Lake McDonald upstream to McDonald Falls.

(X) Lincoln Lake (16 ha (40 ac)) provides FMO habitat and Lincoln Creek from the lake upstream 0.8 km (0.5 mi) to Beaver Chief Falls provides spawning and rearing habitat.

(Y) Harrison Lake (166 ha (410 ac)) provides FMO habitat and its tributary, Harrison Creek, from the lake upstream 6.9 km (4.3 mi) to its headwaters provides spawning and rearing habitat.

(Z) Lake Isabel (17 ha (42 ac)) provides FMO habitat and its tributary, Park Creek, from the lake upstream 1.0 km (0.6 mi) to its headwaters (and including Upper lake Isabel) provides spawning and rearing habitat.

(AA) Trout Lake (86 ha (213 ac)) and Arrow Lake (23 ha (57 ac)) provide FMO habitat, and Camas Creek between Trout and Arrow Lakes as well as 10.9 km (6.8 mi) upstream of Arrow Lake to a falls midway between Arrow and Camas Lakes provides spawning and rearing habitat.

(BB) Logging Lake (444 ha (1,097 ac)) provides FMO habitat and its tributary, Logging Creek, from its confluence with the lake upstream 1.8 km (1.1 mi) to a falls downstream of Grace Lake provides spawning and rearing habitat.

(CC) Cyclone Lake (49 ha (121 ac)) provides FMO habitat and Cyclone Creek from its confluence with Cyclone Lake upstream 7.3 km (4.5 mi) to its headwaters provides rearing habitat for bull trout believed to spawn primarily in the lake outlet.

(DD) The pools of Lower Quartz Lake (67 ha (166 ac)) and the Upper Quartz Lakes Complex (Middle Quartz Lake, Quartz Lake, and Cerulean Lake) (399 ha (986 ac)) provide FMO habitat. Segments of Quartz Creek, totaling 9.0 km (5.6 mi) from the inlet of Lower Quartz Lake to Middle Quartz Lake to Quartz Lake to Cerulean Lake, as well Rainbow Creek, a tributary of Quartz Creek, from its confluence upstream 1.8 km (1.1 mi) to its upper reaches provide spawning and rearing habitat.

(EE) Bowman Lake (690 ha (1,705 ac)) provides FMO habitat and its tributary, Bowman Creek, from the inlet to Bowman Lake upstream 10.6 km (6.6 mi) to its headwaters, as well as its tributary, Pocket Creek, upstream 3.7 km (2.3 mi) from its confluence with Bowman Creek to a barrier falls downstream of Pocket Lake provide spawning and rearing habitat.

(FF) Akokala Lake (9 ha (23 ac)) provides FMO habitat and its tributary, Akokala Creek, upstream 5.1 km (3.2 mi) from the lake inlet to its headwaters provides spawning and rearing habitat.

(GG) Kintla Lake (687 ha (1,698 ac)) provides FMO habitat and Kintla Creek from Kintla Lake upstream 3.9 km (2.4 mi) to a natural barrier provides spawning and rearing habitat.

(HH) Upper Kintla Lake (191 ha (472 ac)) provides FMO habitat and Kintla Creek from Upper Kintla Lake upstream 7.9 km (4.9 mi) to its upper reaches provides spawning and rearing habitat, though spawning has also been documented in the outlet of Upper Kintla Lake.

(II) Frozen Lake (12 ha (30 ac)) provides FMO habitat; a portion of the lake on the outlet end is in British Columbia, Canada and is not designated as critical habitat. Frozen Creek from the lake inlet upstream 4.8 km (3.0 mi) to its headwaters (all in the United States) provides spawning and rearing habitat.

Table 94. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Akokala Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1141986 488790
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Arrow Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1138851 487063
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Bowman Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1141611 488643
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Cerulean Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	Identified as part of a core area complex (Service 2002a).	1140573 488720
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Cyclone Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1143012 487052
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Flathead Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Hansen and Evarts (2005, 2006, 2008), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), Sylvester et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1141336 478854
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Frozen Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	Identified as a core area (Service 2002a).	1146805 489989

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Harrison Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al (2007), . (2008), and Meeuwig et al (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1137712 485164
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Kintla Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1143066 489589
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Lake Isabel	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), Deleray et al. (1999), Grisak and Marotz (2003).	Identified as a core area (Service 2002a).	1134936 484221
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Lake McDonald	MT	Documented in MFISH database (MFWP 2009a), Dux (2005), Fredenberg (2002), Fredenberg et al. (2007), (2008), and Meeuwig et al (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1139259 485834
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Lincoln Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1137705 485907
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Logging Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1140745 487581
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Lower Quartz Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	Identified as a core area (Service 2002a).	1141720 488067

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Middle Quartz Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	Identified as part of a core area complex (Service 2002a).	1141421 488223
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Quartz Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), (2008), Meeuwig et al (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	Identified as part of a core area complex (Service 2002a).	1141021 488289
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Trout Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1139098 486803
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Upper Kintla Lake	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al (2007), (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Identified as a core area (Service 2002a).	1141757 489756
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Upper Stillwater Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1146371 485875
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Upper Whitefish Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1145788 486866
Clark Fork River Basin - Flathead Lake, Flathead River, and Headwater Lakes	Whitefish Lake	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1143814 484509

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Akokala Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al (2007a, 2007b, 2008a, 2008b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142844 487868
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Basin Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	Important portion of the SR complex located in the headwaters of Middle Fork Flathead River, contributing to designated local populations identified in the draft Bull Trout Recovery Plan (Service 2002a).	1129950 479662
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Bear Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-15 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135660 482336
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Big Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	11-40 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141631 486038
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Bowl Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	0-6 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1130569 479964
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Bowman Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al (2007), Meeuwig (2008), and Meeuwig et al (2007a, 2007b, 2008a, 2008b).	0-2 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142809 487833
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Camas Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141411 486301

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Clack Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	4-13 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1130887 480119
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Coal Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-17 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141927 486904
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Cyclone Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-5 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b), but the sole SR habitat for the Cyclone Lake core area.	1142377 486648
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Dead Horse Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Designated as a local population (i.e., portion of Coal Creek local population) in the draft Bull Trout Recovery Plan (Service 2002a).	1142782 486633
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Dolly Varden Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	5-40 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132444 480664
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	East Fork Strawberry Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	Portion of the Strawberry Creek local population; 1-9 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1130301 480639
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	East Fork Swift Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1145500 486545

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Fitzsimmons Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	4-6 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b) and along with the Stillwater River the sole SR habitat for Upper Stillwater Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1147330 487354
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Flathead River	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Hansen and Evarts (2005, 2006, 2008), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), Sylvester et al. (2008), and Weaver et al. (2006).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1147748 473651
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Frozen Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	No bull trout redd counts conducted over 1999-2008, but 10 redds in 1997 and the sole SR habitat for a disjunct core area in Frozen Lake (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1146772 489999
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Gateway Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	Important portion of the SR complex located in the headwaters of Middle Fork Flathead River, contributing to designated local populations identified in the draft Bull Trout Recovery Plan (Service 2002a).	1130214 480299
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Granite Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	8-37 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1133757 481446
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Hallowat Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	2-32 bull trout redds per year in 9 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population (i.e., a portion of the Big Creek local population) in the draft Bull Trout Recovery Plan (Service 2002a).	1143160 485745
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Harrison Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	0-15 bull trout redds per year in 5 counts conducted over 1999-2008 (MFWP 2009b) and the sole SR habitat for Harrison Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138438 484893

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Kintla Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	No bull trout redd counts conducted over 1999-2008 (MFWP 2009b), but 52 redds enumerated in the outlet of Upper Kintla Lake in 1994 and Kintla Creek is the sole SR habitat for two core areas (Kintla Lake and Upper Kintla Lake. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143736 489145
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Kishenehn Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	4-23 bull trout redds per year in 3 counts conducted over 1999-2008, much of drainage is in B.C. (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1144111 489500
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Lincoln Creek	MT	Documented in MFISH database (MFWP 2009a),Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138843 484952
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Lodgepole Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	3-19 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132635 481152
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Logging Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	0-20 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b) and the sole SR habitat for Logging Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1141819 486707
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Long Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	9-17 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135287 481569
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Mathias Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-2 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b), but important rearing habitat for a depressed population that spawns in Coal Creek.	1144218 486692

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	McDonald Creek	MT	Documented in MFISH database (MFWP 2009a), Dux (2005), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1140049 485064
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Middle Fork Flathead River	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140688 484681
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Morrison Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	10-50 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1133101 481104
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	North Fork Flathead River	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	35-76 bull trout redds per year in 5 counts conducted over 1999-2008 in B.C. headwaters; a portion of which are migratory fish using this corridor (MFWP 2009b). Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140717 484691
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Nyack Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	13-16 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137962 484515
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Ole Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	14-44 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135977 482827
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Park Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Fredenberg et al. (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), Muhlfeld et al (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-23 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136133 483098

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Park Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), and Meeuwig et al. (2007a, 2007b, 2008a, 2008b).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136133 483098
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Quartz Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg (2002), Fredenberg et al. (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	4-51 bull trout redds per year in 6 counts conducted over 1999-2008 (MFWP 2009b) and supporting most of the SR habitat for Quartz Lakes core area. Lower Quartz Creek had 1-3 bull trout redds per year (2004-2009) and supports most of the SR habitat for Lower Quartz Lake core area (MFWP 2009b and Downs 2009). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142235 487135
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Rainbow Creek	MT	Documented in MFISH database (MFWP 2009a), Fredenberg et al. (2007), Meeuwig (2008), Meeuwig et al. (2007a, 2007b, 2008a, 2008b), and Tennant et al. (2008).	12-28 bull trout redds per year in 2 counts conducted over 2008-2009 (Downs 2009) and important accessory SR habitat for Quartz Lakes core area.	1140539 488918
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Red Meadow Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	1-5 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143239 488049
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Scalp Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), and Deleray et al. (1999).	Important portion of the SR complex located in the headwaters of Middle Fork Flathead River, contributing to designated local populations identified in the draft Bull Trout Recovery Plan (Service 2002a).	1130406 479824
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Schafer Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	4-19 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132501 480712
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Shorty Creek	MT	Documented in MFISH database (MFWP 2009a).	0-12 bull trout redds per year in 4 counts conducted over 1997-2008 (MFWP 2009b).	1145933 488510

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	South Fork Coal Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	1-3 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b), but important rearing habitat for a depressed population that spawns in Coal Creek. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143446 486802
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	South Fork Flathead River	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), Sylvester et al. (2008), and Weaver et al. (2006).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140880 483881
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Stillwater River	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	12-34 bull trout redds per year in 7 counts conducted over 1999-2008 (MFWP 2009b) and along with Fitzsimmons Creek the sole SR habitat for Upper Stillwater Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1142635 481638
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Strawberry Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	1-9 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1130569 479963
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Swift Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	2-7 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b) and along with West Fork Swift Creek the sole SR habitat for Whitefish Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1144203 484795
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Trail Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	0-21 bull trout redds per year in 3 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1130193 480135
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Trail Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	14-51 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143855 489237

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	West Fork Swift Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	1-12 bull trout redds per year in 8 counts conducted over 1999-2008 (MFWP 2009b) and along with Swift Creek the sole SR habitat for Whitefish Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1145500 486544
Clark Fork River Basin–Flathead Lake, Flathead River, and Headwater Lakes	Whale Creek	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), and Weaver et al. (2006).	27-72 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1143515 488494

31.11. Swan River Critical Habitat Subunit

The Swan River CHSU is essential to bull trout conservation because this CHSU has historically been robust bull trout resource in Montana and includes three lakes, each with a separate bull trout core population, that share an interconnected system of spawning and rearing streams. An extensive network of high-quality spawning and rearing habitat, with strong groundwater influences, historically contributed to the strong bull trout population in the watershed and may enable this CHSU to remain one of the more resistant systems under changing climate scenarios. In the 1990s, Swan Lake was compromised by nonnative lake trout, which subsequently expanded dramatically and the CHSU is now the site of an important lake trout suppression experiment that has implications for the longer-term persistence of the adfluvial life history form of bull trout in the Flathead drainage. The strong bull trout population has provided a harvestable surplus, allowing angler utilization of the bull trout resource to continue despite ESA listing. The core area populations (Swan Lake, Holland Lake, and Lindbergh Lake) represent working models for creating and sustaining bull trout recovery opportunities in heavily managed timber-producing watersheds (see Appendix 1 for more detailed information).

The Swan River CHSU includes the entire Swan River drainage upstream from Bigfork Dam (near the Swan River's confluence with Flathead Lake) in Lake and Missoula Counties in Montana. Of the waters located within the Swan CHSU, 247.9 km (154.0 mi) of stream and 1,545 ha (3,817 ac) of lake surface area in three lakes are designated as bull trout critical habitat.

The following water bodies are included in this CHSU (see Table 95):

(A) Swan Lake (1,085 ha (2,680 ac)) provides FMO habitat for multiple upstream tributary populations of bull trout. Swan River from Swan Lake approximately 87.3 km (54.2 mi) upstream to Lindbergh Lake provides FMO habitat.

Tributaries described in (B) through (I) provide spawning and rearing habitat for migratory bull trout that reside as adults in FMO habitat of Swan Lake and the Swan River:

(B) Lost Creek from its confluence with the Swan River upstream 2.8 km (1.7 mi) to the confluence of the North and South Forks and its tributaries, North Fork Lost Creek from the confluence of the forks upstream 7.6 km (4.7 mi) to a barrier falls and South Fork Lost Creek from the confluence of the forks upstream 7.3 km (4.5 mi) to a barrier falls.

(C) Soup Creek from its confluence with the Swan River upstream 11.1 km (6.9 mi) to a series of natural upstream fish passage barriers in the high gradient upper reaches.

(D) Woodward Creek from its confluence with the Swan River upstream 6.0 km (3.7 mi) to an annually dewatered channel on the northernmost fork and its tributary; South Woodward Creek, from its confluence with Woodward Creek upstream 4.7 km (2.9 mi) to approximately where the stream turns from a southerly to a westerly direction.

(E) Goat Creek from its confluence with the Swan River upstream 15.7 km (9.8 mi) to its confluence with Bethal Creek near its headwaters and its tributary, Squeezer Creek, from its confluence with Goat Creek upstream 8.5 km (5.3 mi) to a barrier falls in its midreaches.

(F) Lion Creek from its confluence with the Swan River upstream 11.5 km (7.1 mi) to a natural barrier falls approximately halfway up the drainage.

(G) Piper Creek from its confluence with the Swan River upstream 15.5 km (9.6 mi) to its source at Piper Lake.

(H) Jim Creek from its confluence with the Swan River upstream 16.9 km (9.9 mi) to the lowermost Jim Lake.

(I) Cold Creek from its confluence with the Swan River upstream 21.1 km (13.1 mi) to its source and its tributary, North Fork Cold Creek, 7.5 km (4.7 mi) from its confluence with Cold Creek to its source at Lower Cold Lake.

(J) Elk Creek from its confluence with the Swan River upstream 16.9 km (10.5 mi) to the confluence of the North and South Fork Elk Creeks.

The following lakes and their attached upstream occupied tributary segments described in (K) and (L) are designated as bull trout critical habitat. These bull trout populations are considered separate core areas because of isolation.

(K) Lindbergh Lake (293 ha (725 ac)) provides FMO habitat; the upper Swan River upstream 7.6 km (4.7 mi) from Lindbergh Lake to near its headwaters provides spawning and rearing habitat.

(L) Holland Lake (167 ha (412 ac) provides FMO habitat and Holland Creek from Holland Lake to a natural barrier falls upstream 0.8 km (0.5 mi) provides spawning and rearing habitat.

Table 95. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Swan River and Lakes CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Swan River and Lakes	Cold Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	2-25 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137557 475837
Clark Fork River Basin–Swan River and Lakes	Elk Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	152-261 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137413 475435
Clark Fork River Basin–Swan River and Lakes	Goat Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	46-80 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138284 477489
Clark Fork River Basin–Swan River and Lakes	Holland Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	4-13 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b) and the sole SR habitat for Holland Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136748 474413
Clark Fork River Basin–Swan River and Lakes	Holland Lake	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	Identified as a core area (Service 2002a).	1135975 474480
Clark Fork River Basin–Swan River and Lakes	Jim Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	18-95 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137923 476482
Clark Fork River Basin–Swan River and Lakes	Lindbergh Lake	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	Identified as a core area (Service 2002a).	1137335 473813
Clark Fork River Basin–Swan River and Lakes	Lion Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	75-136 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138152 476807
Clark Fork River Basin–Swan River and Lakes	Lost Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a), most spawning and rearing occurs upstream in North and South Forks.	1138483 478699

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Swan River and Lakes	North Fork Cold Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	2-25 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138110 475621
Clark Fork River Basin–Swan River and Lakes	North Fork Lost Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	No bull trout redd counts since 1999 but 5-13 per year in 7 counts conducted over 1982-1998 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138242 478731
Clark Fork River Basin–Swan River and Lakes	Piper Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	2-18 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138150 476752
Clark Fork River Basin–Swan River and Lakes	Soup Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	2-12 bull trout redds per year in 18 counts conducted over 1991-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138427 478368
Clark Fork River Basin–Swan River and Lakes	South Fork Lost Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	11-26 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138242 478730
Clark Fork River Basin–Swan River and Lakes	South Woodward Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	10-20 bull trout redds per year in 2 counts conducted over 2007-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138570 477540
Clark Fork River Basin–Swan River and Lakes	Squeezer Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	59-123 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1138154 477501
Clark Fork River Basin–Swan River and Lakes	Swan Lake	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	Identified as a core area (Service 2002a).	1138953 479547
Clark Fork River Basin–Swan River and Lakes	Swan River	MT	Documented in MFISH database (MFWP 2009a), Cox and Guy (2007), Swan Valley Bull Trout Working Group (2009), and Weaver (2006).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140797 480592.1
Clark Fork River Basin–Swan River and Lakes	Swan River	MT	Documented in MFISH database (MFWP 2009a), Cox and Guy (2007), Swan Valley Bull Trout Working Group (2009), and Weaver (2006).	5-16 bull trout redds per year in 2 counts conducted over 1999-2008 (MFWP 2009b) and the sole SR habitat for Lindbergh Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1140797 480592.2

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Swan River and Lakes	Woodward Creek	MT	Documented in MFISH database (MFWP 2009a) and Weaver (2006).	53-116 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1138449 477768

31.12. South Fork Flathead and Hungry Horse Reservoir Critical Habitat Subunit

The South Fork Flathead CHSU is essential to bull trout conservation because it is among the most secure and stable bull trout refugium across the range of the species. This CHSU is essential for bull trout recovery as a very important stronghold against potential extinction. The adfluvial population of bull trout that is the sole life history form present in the CHSU originated from Flathead Lake from adult and juvenile fish trapped upstream of Hungry Horse Dam, which adapted to the new habitat and have provided a strong and resilient core area population. Few nonnative fish occur in this CHSU, and most of the spawning and rearing habitat is in protected and unaltered habitat within the Bob Marshall Wilderness, including two of three core areas. The strong bull trout population and high level of habitat security has provided an opportunity to allow anglers to utilize the bull trout resource, harvesting a closely regulated number of fish, despite ESA listing. An extensive network of high-quality spawning and rearing habitat, including many streams with groundwater influence, makes this CHSU one of the more resistant systems under a variety of changing climate scenarios (see Appendix 1 for more detailed information).

The South Fork Flathead CHSU include the entire South Fork Flathead River drainage upstream from Hungry Horse Dam (located 9.0 km (5.6 mi) upstream from the South Fork's confluence with the mainstem Flathead River) in Flathead, Missoula, Powell, and Lewis and Clark Counties in Montana. Of the waters located within the South Fork Flathead CHSU, 349.1 km (216.9 mi) of streams, as well as 9,988 ha (24,679 ac) of lake and reservoir surface area in three water bodies are designated as critical habitat for bull trout.

The following water bodies are included in this CHSU (see Table 96):

(A) Hungry Horse Reservoir (9,632 ha (23,800 ac)) and the South Fork Flathead River upstream 103.3 km (64.2 mi) from the full pool level of Hungry Horse Reservoir to its source at the confluence of Youngs and Danaher Creeks provide occupied FMO habitat for migratory populations of bull trout.

Tributaries described in (B) through (K) provide spawning and rearing habitat:

(B) Wounded Buck Creek from its confluence with Hungry Horse Reservoir upstream 6.1 km (3.8 mi) to a series of natural cascades in the upper reaches of the drainage.

(C) Wheeler Creek from its confluence with Hungry Horse Reservoir upstream 5.8 km (3.6 mi) to a natural barrier falls just upstream of the confluence of Trapper Creek.

(D) Sullivan Creek from its confluence with Hungry Horse Reservoir upstream 24.7 km (15.3 mi) to its headwaters and its tributary, Quintonkon Creek, from its confluence with Sullivan Creek upstream 5.3 km (3.3 mi) to a natural barrier falls approximately halfway up the drainage.

(E) Spotted Bear River from its confluence with the South Fork Flathead River upstream 32.9 km (20.4 mi) to Dean Falls, just upstream from the confluence of Slim Creek, provides FMO habitat.

(F) Bunker Creek from its confluence with the South Fork Flathead River upstream 17.9 km (11.1 mi) to a barrier falls above its confluence with String Creek provides spawning and rearing habitat.

(G) Little Salmon Creek from its confluence with the South Fork Flathead River upstream 28.7 km (17.8 mi) to its source.

(H) White River from its confluence with the South Fork Flathead River upstream 13.1 km (8.1 mi) to Needle Falls (located upstream from the confluence of the South Fork White River).

(I) Gordon Creek from its confluence with the South Fork Flathead River upstream 26.5 km (16.5 mi) to a barrier falls in its upper reaches near its confluence with George Creek.

(J) Youngs Creek from its confluence with Danaher Creek upstream 28.7 km (17.8 mi) to the confluence of Ross Creek near its headwaters, and Babcock Creek (a tributary to Youngs Creek) from its mouth upstream 7.3 km (4.5 mi) to its confluence with Otis Creek provide spawning and rearing habitat.

(K) Danaher Creek from its confluence with Youngs Creek to form its headwaters of the South Fork Flathead River upstream 33.5 km (20.8 mi) to its source, and Rapid Creek (a tributary to Danaher Creek) from its confluence upstream 2.9 km (1.8 mi) to the confluence of Fiction Creek.

The following lakes and attached stream segments designated as critical habitat describe bull trout populations isolated to varying degrees from full connectivity with Hungry Horse Reservoir and each is considered a separate core area. The lakes (FMO) and upstream spawning and rearing habitat are designated as critical habitat.

(L) Big Salmon Lake (324 ha (800 ac)) provides FMO habitat. Big Salmon Creek upstream 7.3 km (4.6 mi) from Big Salmon Lake to a barrier falls just upstream from the confluence of Spud Creek provides spawning and rearing habitat.

(M) Doctor Lake (32 ha (79 ac)) provides FMO habitat and the entire length of Doctor Creek (5.3 km (3.3 mi)), occurring both upstream and downstream of Doctor Lake, provides spawning and rearing habitat.

Table 96. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Babcock Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	Important portion of the SR habitat in Youngs Creek, contributing to a designated local population identified in the draft Bull Trout Recovery Plan (Service 2002a).	1132689 473661
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Big Salmon Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	27-75 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b) and the sole SR habitat for Big Salmon Lake core area. Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1133565 476338
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Big Salmon Lake	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	Identified as a core area (Service 2002a).	1133871 476020
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Bunker Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1134152 478298
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Danaher Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	7 bull trout redds in 1 count conducted in1999 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1131825 474453
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Doctor Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1134575 474288
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Doctor Lake	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), Deleray et al. (1999), Grisak and Marotz (2003).	Identified as a core area (Service 2002a).	1134814 474036

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Gordon Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), Deleray et al. (1999), Grisak and Marotz (2003).	99-142 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132236 474788
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Hungry Horse Reservoir	MT	Documented in MFISH database (MFWP 2009a), CSKT and MFWP (2004), Deleray et al. (1999), Muhlfeld et al. (2005, 2007, 2008), Steed et al. (2008), Sylvester et al. (2008), and Weaver et al. (2006).	Identified as a core area (Service 2002a).	1137983 482012
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Little Salmon Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	50-138 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1133600 476545
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Quintonkon Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	4-48 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b).	1137068 480260
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Rapid Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	0 bull trout redds in 1 count conducted in1999 (MFWP 2009b).	1130540 473716
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	South Fork Flathead River	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), Deleray et al. (1999), Rosenthal and Hensler (2008), and Sylvester et al. (2008).	Demonstrated to be an important migratory corridor for local populations designated in the draft Bull Trout Recovery Plan (Service 2002a).	1140880 483881
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Spotted Bear River	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	13 bull trout redds in one count conducted in 1999 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1135255 479243

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Sullivan Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	18-74 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1136727 480633
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Wheeler Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	4-25 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1137125 481096
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	White River	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	70-90 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1132976 475879
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Wounded Buck Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	3-47 bull trout redds per year in 10 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1139220 482987
Clark Fork River Basin–Hungry Horse Reservoir, South Fork Flathead River	Youngs Creek	MT	Documented in MFISH database (MFWP 2009a), Boyer et al. (2008), CSKT and MFWP (2004), and Deleray et al. (1999).	61-132 bull trout redds per year in 4 counts conducted over 1999-2008 (MFWP 2009b). Designated as a local population in the draft Bull Trout Recovery Plan (Service 2002a).	1131825 474454